Available online at www.sciencedirect.com
SCIENCE DIRECT®
ELSEVIER
European Journal of Operational Research 151 (2003) 648–655
EUROPEAN JOURNAL OF OPERATIONAL RESEARCH
www.elsevier.com/locate/dsw

Keyword Index Volumes 144–151 (2003)

Activity insertion, (149) 249
Activity-on-node/flow network, (149) 249
Agent-based simulation, (150) 19
Agent-based technology, (146) 83
Aggregation, (146) 615
Aggregation/disaggregation approach, (147) 72
Aggregation with iterative disaggregation, (148) 436
Agriculture, (151) 569
AHP, (147) 137
Air traffic management, (144) 179
Aircraft routing, (146) 417
Airport games, (148) 494
Akaike's information criterion (AIC), (145) 443
Algorithm, (146) 460, (147) 365
Algorithm evaluation, (148) 323
Alignment, (146) 233
Allocations, (145) 403
Ambulances, (147) 451
American put option, (151) 153
Analysis of algorithm, (147) 365
Analytic hierarchy process, (145) 382, (147) 128, (150) 194, 496
Analytical hierarchy process, (148) 514
Ant Colony optimization, (148) 672
Applied probability, (147) 499, (150) 92, (151) 140
Approximation, (147) 345, (149) 533
Approximation algorithm, (145) 557
Approximation algorithms, (150) 281
ε-Approximation, modeling, (150) 370
Arbitrage pricing, (151) 193
Arbitration, (145) 660
ARCH models, (150) 516
Ashenfelter's dip, (148) 233
Assembly line, (145) 606
Assembly line balancing, (149) 417
Asset and liability management, (151) 602
Assignment, (144) 83, (148) 374, (150) 220
Assignment games, (146) 1
Assignment problem, (149) 35
Athletic performance, (148) 293
ATM networks, (146) 181
Australia, (146) 580
Austrian red cross, (150) 3
Automated external defibrillation, (150) 3

Balancing, (145) 606
Bandwidth allocation, (149) 377
Bank efficiency, (148) 662
Banking, (148) 116, (151) 602
Bankruptcy problems, (148) 494
Banks, (150) 466
Batch processing machine, (147) 644
Bayesian analysis, (147) 499, (149) 459
Bayesian inference, (148) 152
Behavioral considerations, (150) 204
Benders decomposition, (148) 570
Bibliographic study, (150) 496
Bicriteria, (147) 373
Bicriteria scheduling, (145) 543
Big-M method, (148) 323
Bimatrix games, (148) 480
Binary choice, (148) 65
Binary trees, (151) 253
Blockmodel, (148) 56
η-bonvexity, (144) 492
Bounds, (145) 403
Branch and bound, (144) 1, (148) 349, 604, (151) 238
Branch-and-bound, (144) 348, (148) 591
Breakdowns, (149) 588
Budget allocation, (145) 621
Bullwhip effect, (147) 567
Business performance, (146) 580
Business process reengineering, (146) 241

Call center design, (147) 464
Capacitated arc routing problem, (147) 629
Capacitated facility location, (151) 333
Capacity, (148) 28
Capacity and flow assignment, (146) 444
Capacity management, (146) 596
Capacity planning, (148) 644, (150) 92
CART analysis, (150) 81
Catastrophes, (147) 522, (149) 625
Cause mapping (structuring and analysis), (148) 192
Cellular manufacturing systems, (151) 434
Cellular system, (147) 418
Censored data, (146) 433
Center problem, (145) 483
Centroid, (148) 401
Certification, (146) 580
Chain-perspective, (144) 295
Chance constraints, (147) 217
Channel coordination, (150) 617
Channel dynamics and redistribution, (144) 646
Channels of distribution, (150) 617
Choice under uncertainty, (151) 224
Choquet integral, (148) 28
Classification, (145) 239, (146) 19
Climate change, (146) 199
Cluster analysis, (145) 121
Clustering, (146) 19
Color-coding method, (148) 584
Column generation, (149) 302
Combinatorial optimization, (145) 45, (147) 397, 657, (148) 1, 277, 559, (149) 533, (150) 653, (151) 352
Combinatorial problem, (147) 365
Combined heat and power production, (148) 141
Communication, (144) 56
Compaction, (149) 533
Company's knowledge, (145) 256
Competition, (149) 211
Competitive facility, (144) 366
Competitive facility location, (149) 47
Complete graphs, (149) 65
Complete local search with memory, (150) 150

doi:10.1016/S0377-2217(03)00469-7

Available online at www.sciencedirect.com
SCIENCE DIRECT®
ELSEVIER
European Journal of Operational Research 151 (2003) 648–655
EUROPEAN JOURNAL OF OPERATIONAL RESEARCH
www.elsevier.com/locate/dsw

Keyword Index Volumes 144–151 (2003)

Activity insertion, (149) 249
Activity-on-node/flow network, (149) 249
Agent-based simulation, (150) 19
Agent-based technology, (146) 83
Aggregation, (146) 615
Aggregation/disaggregation approach, (147) 72
Aggregation with iterative disaggregation, (148) 436
Agriculture, (151) 569
AHP, (147) 137
Air traffic management, (144) 179
Aircraft routing, (146) 417
Airport games, (148) 494
Akaike's information criterion (AIC), (145) 443
Algorithm, (146) 460, (147) 365
Algorithm evaluation, (148) 323
Alignment, (146) 233
Allocations, (145) 403
Ambulances, (147) 451
American put option, (151) 153
Analysis of algorithm, (147) 365
Analytic hierarchy process, (145) 382, (147) 128, (150) 194, 496
Analytical hierarchy process, (148) 514
Ant Colony optimization, (148) 672
Applied probability, (147) 499, (150) 92, (151) 140
Approximation, (147) 345, (149) 533
Approximation algorithm, (145) 557
Approximation algorithms, (150) 281
ε-Approximation, modeling, (150) 370
Arbitrage pricing, (151) 193
Arbitration, (145) 660
ARCH models, (150) 516
Ashenfelter's dip, (148) 233
Assembly line, (145) 606
Assembly line balancing, (149) 417
Asset and liability management, (151) 602
Assignment, (144) 83, (148) 374, (150) 220
Assignment games, (146) 1
Assignment problem, (149) 35
Athletic performance, (148) 293
ATM networks, (146) 181
Australia, (146) 580
Austrian red cross, (150) 3
Automated external defibrillation, (150) 3

Balancing, (145) 606
Bandwidth allocation, (149) 377
Bank efficiency, (148) 662
Banking, (148) 116, (151) 602
Bankruptcy problems, (148) 494
Banks, (150) 466
Batch processing machine, (147) 644
Bayesian analysis, (147) 499, (149) 459
Bayesian inference, (148) 152
Behavioral considerations, (150) 204
Benders decomposition, (148) 570
Bibliographic study, (150) 496
Bicriteria, (147) 373
Bicriteria scheduling, (145) 543
Big-M method, (148) 323
Bimatrix games, (148) 480
Binary choice, (148) 65
Binary trees, (151) 253
Blockmodel, (148) 56
η-bonvexity, (144) 492
Bounds, (145) 403
Branch and bound, (144) 1, (148) 349, 604, (151) 238
Branch-and-bound, (144) 348, (148) 591
Breakdowns, (149) 588
Budget allocation, (145) 621
Bullwhip effect, (147) 567
Business performance, (146) 580
Business process reengineering, (146) 241

Call center design, (147) 464
Capacitated arc routing problem, (147) 629
Capacitated facility location, (151) 333
Capacity, (148) 28
Capacity and flow assignment, (146) 444
Capacity management, (146) 596
Capacity planning, (148) 644, (150) 92
CART analysis, (150) 81
Catastrophes, (147) 522, (149) 625
Cause mapping (structuring and analysis), (148) 192
Cellular manufacturing systems, (151) 434
Cellular system, (147) 418
Censored data, (146) 433
Center problem, (145) 483
Centroid, (148) 401
Certification, (146) 580
Chain-perspective, (144) 295
Chance constraints, (147) 217
Channel coordination, (150) 617
Channel dynamics and redistribution, (144) 646
Channels of distribution, (150) 617
Choice under uncertainty, (151) 224
Choquet integral, (148) 28
Classification, (145) 239, (146) 19
Climate change, (146) 199
Cluster analysis, (145) 121
Clustering, (146) 19
Color-coding method, (148) 584
Column generation, (149) 302
Combinatorial optimization, (145) 45, (147) 397, 657, (148) 1, 277, 559, (149) 533, (150) 653, (151) 352
Combinatorial problem, (147) 365
Combined heat and power production, (148) 141
Communication, (144) 56
Compaction, (149) 533
Company's knowledge, (145) 256
Competition, (149) 211
Competitive facility, (144) 366
Competitive facility location, (149) 47
Complete graphs, (149) 65
Complete local search with memory, (150) 150

doi:10.1016/S0377-2217(03)00469-7

Complexity, (145) 31, (147) 345, (149) 355
Complexity theory, (147) 397
Componentized enterprise technology, (146) 339
Compound immigration process, (147) 522
Compromise programming, (151) 119
Compromise solution, (144) 459
Computational analysis, (144) 598
Computational complexity, (147) 281, (149) 533
Computational finance, (150) 572
Computational methods, (145) 232
Concave cost, (148) 374
Concept learning, (146) 83
Confidence interval, (151) 586
Confirmatory factor analysis, (146) 130
Conflict resolution, (147) 108
Conjoint analysis, (150) 672
Conjoint independence, (148) 65
Connection admission control, (144) 166
Conservation period, (147) 558
Consistency, (145) 382, (147) 137
Consistent, (145) 85
Constraint propagation, (147) 231, (149) 302
Construction of criteria, (144) 397
Constructivist epistemology, (145) 202
Consumer behavior, (146) 650
Container terminal, (147) 1, (148) 92
Continuous flow-shop scheduling, (151) 400
Continuous invexity properties, (148) 48
Continuous review policy, (145) 569
Continuous-time Markov chain, (149) 625
Continuous variables, (148) 335
Control, (147) 17, 62
Control charts, (150) 420
Control limit, (149) 614
(α, β)-Convexity, (146) 529
Convex programming, (144) 501, (151) 461
Cooperative games, (147) 108
Co-scheduling, (149) 377
Cost analysis, (145) 175
Cost control, (146) 596
Cost model, (149) 475
Cost reducing R&D, (150) 617
Cost-effectiveness, (150) 53
Cost-effectiveness analysis, (150) 3
Critical path analysis, (147) 266
Critical resource diagram, (151) 167
Critical success factors, (146) 241, 352
Cross-docking, (144) 629
Cross-efficiencies, (147) 198
Customer insolvency, (145) 239
Cutting, (149) 533
Cutting stock problem, (146) 388
Cycle time minimization, (145) 31
Cycle times, (145) 403
Cyclic scheduling, (145) 31, (149) 417

D61, (148) 662
Data envelopment analysis, (144) 513, 530, 545, (146) 477, (147) 51, 128, 198, 499, (148) 312, (149) 688, (151) 233
Data envelopment analysis (DEA), (144) 108, 454
Data measurement inaccuracies, (144) 412
Data mining, (151) 253
Data reduction, (147) 51
DEA, (144) 194, (147) 165
DEA analysis, (148) 662
Decision aid, (145) 256
Decision analysis, (144) 128, (145) 92, 148, 673, 695, (147) 117, (148) 65, 525, 534, (149) 17, 654, (150) 293, (151) 140, 224
Decision support, (144) 224, (146) 83, (148) 102
Decision support system, (150) 3, 101
Decision support systems, (144) 179, (145) 232, 239, 304, 343, 382, (146) 156, (147) 117, 187
Decision theory, (145) 109
Decisional wealth, (150) 204
Decision-making, (145) 256
D-efficiency, (147) 484
Degeneracy, (149) 35
Delay and disruption, (148) 192
Delphi study, (146) 284
Delta–Gamma–Theta VaR, (150) 529
Demand diffusion, (144) 646
Demand splitting, (147) 405
Deployment, (146) 352
Design evaluation, (145) 455
Design of experiments, (147) 484
Deterioration, (147) 549
Deterministic and random search methods, (146) 417
Developing countries, (147) 187, (150) 67
Diabetic retinopathy, (150) 81
Diagnostic checks, (150) 437
Difference-in-differences, (148) 233
Difference of convex programming, (148) 349
Difference process strategy, (145) 530
Digital information system, (145) 256
Directional decomposition, (149) 142
Directional technology distance function, (144) 108
Direct-search techniques, (146) 417
Discrete alternative methods, (150) 496
Discrete location problems, (145) 509
Discrete problems, (145) 496
Discriminant analysis, (145) 471
Disease control, (146) 433
Dispersed consequences, (144) 397
Distance function, (146) 615
Distances, (151) 586
Distributed computing system, (147) 430
Distribution, (144) 560, 659, (145) 569, (148) 363, 384, (151) 520
Distribution channels, (149) 571
Distribution function, (145) 394
Diversification, (150) 115
Dominance properties, (144) 1
Dominance relation, (147) 373
Dominant cliques, (149) 65
Double strings, (144) 581
Driver scheduling, (147) 334
Dual algorithm, (149) 1
Dual bin packing, (149) 490
Duality, (146) 615
Duality theorems, (144) 554
Due date related measures, (147) 644
Duopoly, (147) 32
Dynamic and stochastic networks, (144) 27
Dynamic game, (148) 48
Dynamic programming, (144) 39, 138, 166, 480, (145) 509, 635, (146) 529, 553, (147) 522, 558, (148) 525, 591, (149) 229, 344, (150) 163, 353, (151) 80

e-Business change management, (146) 374
Echelon stock, (149) 185
E-commerce, (151) 38
Economic design, (150) 420
Economic efficiency measurement, (144) 454
Economics, (145) 695, (150) 220
Efficiency, (144) 513, (146) 477, 615, (147) 94, 198, (150) 466
Efficiency analysis, (149) 688
Efficiency measurement, (147) 499
Efficiency measurement and evaluation, (144) 412
Efficiency/productivity analysis, (144) 545
Efficient solutions, (144) 492
Eigenvector method, (148) 514
ELECTRE III, (148) 14
ELECTRE Tri, (146) 199
Electre Tri, (147) 72
Electronic business, (144) 280
Electronic commerce, (144) 270, 280, (145) 232
Electronic marketplaces, (144) 280
Elevator performance, (146) 156
Eligibility constraints, (149) 523

Elimination rules, (144) 1
Emergency medical services, (147) 451
Emergency transshipments, (145) 569, (149) 438
Empirical Bayes procedures, (147) 499
Energy, (145) 136, 148, (146) 199, (148) 141
Energy system, (145) 304
English and Welsh police forces, (147) 165
Enterprise information technologies, (146) 339
Enterprise resource planning, (146) 233, 241, 258, 302, 365
Enterprise resource planning systems, (146) 284
Entrepreneurs, (144) 440
Environment, (144) 397, (145) 148, (151) 536
Environmental management, (145) 175
Environmentally Responsible Manufacturing, (146) 130
Equal flow, (150) 585
Equilibrium, (148) 480
Equity, (148) 80
ERP, (146) 233, 274, 352
ERP implementation, (146) 374
ERP planning, (146) 315
European central bank, (145) 363
European options, (145) 221
Evaluation, (146) 352, (148) 233
Evolutionary heuristic, (148) 621
Exchange algorithm, (147) 484
Exhaustive, (149) 588
Expected value, (147) 281
Experimental design, (150) 437
Expert systems, (145) 343, 363
Exponential desirability function, (147) 156
External costs, (144) 194

Facets, (147) 671
Facilities planning and design, (144) 237, (145) 165, (147) 128
Facility location, (150) 128
Facility planning, (151) 265
Factor analysis, (145) 121, (150) 516
Farm management, (144) 613
Final-offer arbitration, (145) 660
Finance, (144) 440, (150) 496, 529, 546, (151) 193, 617
Financial modelling, (150) 516
Fixed cost allocation, (147) 198
Fixed points, (146) 19
Fleet sizing, (148) 570
Flexibility, (144) 270
Flexible manufacturing systems, (147) 591
Flexible parameters, (147) 312
Floorplan design, (149) 533
Flow-capturing, (144) 366
Flowline, (149) 142
Flowshop, (147) 373, 644
Flow-shop, (149) 390
Flowshops, (149) 513
Flowshop scheduling, (146) 498
Football, (148) 268
Football match results, (148) 247
Forecasting, (148) 257, 293
Forma analyses, (144) 333
Frameworks, (146) 233
Free disposable hull (FDH), (144) 454
Fuzzy (Bayes) estimator, (146) 101
Fuzzy cost, (150) 320
Fuzzy decision variables, (149) 654
Fuzzy expectation, (145) 221, (151) 153
Fuzzy goal programming, (144) 480
Fuzzy intervals, (147) 231, 266
Fuzzy intervals and indices, (144) 412
Fuzzy inventory, (148) 401, (150) 320
Fuzzy logic, (147) 312
Fuzzy multiple objective linear programming, (145) 304
Fuzzy number, (147) 281, (148) 401
Fuzzy outranking, (145) 317
Fuzzy programming, (145) 665
Fuzzy quality loss function, (147) 156
Fuzzy random variable, (146) 101
Fuzzy real number, (146) 101
Fuzzy set, (147) 253, (150) 601
Fuzzy sets, (145) 317, 329, 343, 363, (146) 101, (147) 297, 334, (148) 426, 467, (149) 654
Fuzzy set theory, (149) 185
Fuzzy stochastic process, (145) 221, (151) 153

G21, (148) 662
G34, (148) 662
GA, (151) 296
Game theory, (144) 440, (145) 685, (146) 1, (148) 494, (149) 211, 676, (150) 220, 395, (151) 461
Gamma process, (150) 451
Gang scheduling, (149) 377
Gantt charts, (149) 430
Gated, (149) 588
GDSS, (145) 287
General temporal constraints, (149) 325
Generalised job shop, (147) 312
Generalized assignment problem, (151) 238
Generalized convexlikeness, (149) 641
Generalized mixture operators, (145) 329
Generalized monotonicity, (144) 501
Genetic algorithm, (145) 175, 530, (148) 335, (150) 406
Genetic algorithms, (144) 27, 333, 581, (145) 57, 543, (146) 621, (147) 156, 334, 430, (148) 14, (149) 77, (150) 672, (151) 253, 307
Geographical location, (144) 237
Geometric mean, (147) 137
$GI/M/1$ queue, (146) 52
Global optimization, (146) 417, 444, (148) 335, 349, (151) 389
Globally Gated, (149) 588
Goal programming, (148) 302, (150) 496
Government, (145) 121
Graph coloring, (148) 546, (151) 379
Graph decomposition, (147) 253
Graph theory, (145) 394, (148) 546
Greedy, (150) 150
Grey systems theory, (145) 175
Group decision, (145) 695, (148) 14
Group decision and negotiation, (145) 287, 660, (148) 534
Group decisions and negotiation, (145) 673
Group decisions and negotiations, (145) 232
Group decision-making, (147) 117

Hardware redundancy, (147) 430
Health, (150) 32
Health care systems, (146) 596
Health-related behaviour, (150) 19
Health services, (146) 156, (147) 187, (150) 3, 46, 53, 67, 81, 92, 101, (151) 181
Heuristic, (146) 444, (148) 374, (149) 142
Heuristic algorithms, (144) 179
Heuristic optimization, (147) 484
Heuristic search, (150) 253
Heuristics, (144) 83, 598, 629, (145) 57, 72, 585, 606, (146) 19, 498, (147) 373, 397, 613, (148) 126, 166, 211, 559, 584, (149) 53, 282, 390, 513, (150) 128, 150, 672, (151) 140, 265, 389, 400, 481, 536
Hierarchical production planning, (150) 237
HIV and AIDS, (147) 187
Hostage rescue, (151) 80
Human resources, (144) 39, (148) 116
Human resources management, (148) 277
Hybrid GA, (151) 296
Hypotheses testing, (151) 552
Hypothesis testing, (150) 437

Identical machines, (147) 591
Imperfect competition, (144) 454
Implementation, (146) 258
Implementation procedures, (146) 241
Imprecise data, (144) 513

Imprecise information, (147) 72
Imputation, (151) 53
Inconsistent linear systems, (147) 72
Independence axiom, (145) 216
Index tracking, (148) 621
Indian banks, (148) 662
Indicators, (144) 295
Industrial organization, (150) 617
Infinite horizon, (146) 52
Information, (147) 62
Information fusion, (148) 467
Information system implementation, (146) 274
Information technology, (144) 280
Input–output analysis, (145) 175, 304
Insensitivity, (147) 418
Insertion techniques, (151) 307
Insurance, (150) 466
Integer programming, (144) 397, (145) 1, (146) 339, 486, (149) 65, (150) 3, (151) 474
Integrative logistics operations, (144) 257
Intensification, (150) 115
Interactive, (144) 429
Interactive criteria, (148) 28
Interactive methods, (145) 304
Interactive multiple criteria decision making, (147) 94
Interactive programming, (145) 665
Interdependent items, (145) 585
Interfirm comparison, (150) 482
International finance, (150) 466
Internet, (144) 646, (146) 374
Inter-organizational systems, (146) 634
Interrupted geometric yield, (145) 635
Intervals, (147) 266
Introduction sequence, (149) 102
Inventory, (144) 659, 677, (145) 569, 585, (146) 216, 553, (147) 62, 530, 549, (148) 363, 384, 401, 452, (149) 197, 229, 438, 557, 571, (150) 304, 320, 601, (151) 25, 536
Inventory management, (148) 211
Inventory model, (146) 52
Inventory policies, (149) 185
Investment analysis, (144) 209, (151) 617
Invex functions, (144) 501
ISO 9000, (146) 580
IT, (144) 257
IT project escalation, (146) 115

J24, (148) 233
Job routing, (148) 166
Job-shop, (151) 307
Job shop scheduling, (145) 57
Job shops, (149) 499
Joint membership function, (149) 654

Keyboard arrangement, (148) 672
Knapsack constraints, (151) 238
Knowledge acquisition and reasoning, (146) 83
Knowledge capitalization, (145) 256
Knowledge management, (145) 256, (146) 83
Knowledge-worker desktop, (145) 256

Labor skills, (149) 540
Lagrangean heuristics, (151) 333
Lagrangian relaxation, (144) 598, (148) 591, (149) 499
Lanchester laws, (148) 152
Large-scale models, (147) 94
Large scale optimisation, (146) 486
Large scale optimization, (149) 1
Large-scale optimization, (145) 148, (148) 570, (151) 461
Late jobs, (149) 344
Leadtimes, (147) 62
Learning by doing, (150) 353
Learning curves, (147) 665
Least-squares method, (148) 426
Lexicographic, (146) 460
Lexicographic maximin, (148) 80
Light-duty vehicles, (144) 194
Light traffic, (147) 418
Linear and generalized linear fractional programming, (144) 545
Linear and nonlinear programming, (144) 545
Linear and quadratic weight generating functions, (145) 329
Linear consecutively connected systems, (150) 406
Linear programming, (145) 471, 665, (146) 543, (148) 80, 126, 141, 323, (149) 1, 314, (150) 67, (151) 193
List scheduling, (146) 403
Literature overview, (147) 1
Litigation, (148) 192
Local optimization, (150) 181
Local search, (146) 388, (147) 629, (150) 115, 150, (151) 352
Local search algorithms, (145) 72
Local search methods, (151) 247
Location, (144) 56, 366, (145) 1, 673, (146) 517, (147) 451, (149) 53, 211, (151) 474
Location problem, (145) 483
Logic cuts, (151) 238
Logical constraints, (144) 613
Logistic regression, (146) 115
Logistic regression models, (146) 302
Logistical competence, (144) 247
Logistics, (144) 83, 247, 295, 321, (145) 569, (147) 1, (150) 128, (151) 520

Logistics platform, (144) 270
Logistics restructuring, (144) 247
Logit, (148) 257
Longest path, (148) 584
Lot size, (149) 131
Lot sizing, (144) 677, (145) 635, (151) 181, 238
Lot-sizing, (147) 558, (148) 211
Lower bounds, (149) 302, 314
Loyalty, (144) 257

Machine loading, (149) 430
Machine location, (148) 166
Machine location problem, (147) 591
Machine-cell location, (149) 142
Mainstream-data, (145) 256
Maintenance, (148) 410, (150) 451
Makespan, (146) 498, (147) 373
Makespan, Multiprocessor task scheduling, (149) 390
Manpower planning, (144) 39
Manpower rostering, (151) 447
Manufacturing, (146) 315, (148) 452, (151) 434
Manufacturing firms, (146) 365
Manufacturing systems, (149) 499
Marketing, (146) 621, (150) 653
Marketing channels, (144) 270
Markov chain, (146) 52
Markov decision process, (147) 522
Markov processes, (144) 138, (148) 436, (150) 46, (151) 415
Markovian analysis, (149) 459
Material flow, (148) 166
Material handling equipment, (147) 1
Material requirements planning, (148) 211
Mathematical modelling, (144) 179
Mathematical programming, (144) 492, 501, (147) 613, (150) 128
Matrix geometric method, (147) 511
Maximal cover problems, (151) 474
Maximum cardinality bin packing, (149) 490
Maximum lateness, (149) 404
Maximum likelihood estimation, (145) 443
Maximum tardiness, (147) 281
Maximum time lags, (144) 348
Max-ordering problems, (147) 657
MCMC, (148) 152
Mean flowtime, (147) 373
Mean value function, (145) 443
Mean-variance analysis, (151) 224
Median cycle problem, (151) 365
Membership function, (144) 480
Mergers, (150) 466

Metaheuristics, (146) 388, (150) 546, (151) 1, 400, 415
Meta-heuristics, (145) 530, (151) 247
Meta-model, (145) 202
Methodology, (144) 295, 321, (145) 425
Microeconomics, (150) 353
Military, (144) 224, (146) 486, (148) 152
Min–max problems, (151) 389
Missing data, (151) 53
Mixed 0–1 programs, (151) 503
Mixed heuristics, (145) 530
Mixed integer linear models, (144) 56
Mixed-integer model, (144) 629
Mixed integer programming, (146) 181
Mixed-model assembly lines, (149) 417
Mobile subscribers, (147) 418
Model, (145) 202
Model calibration, (151) 552
Modeling, (144) 83, (150) 304
Modelling, (150) 19
Modelling systems, (150) 53
Monetary policy, (145) 363
Monte Carlo analysis, (148) 247
MPSS, (144) 108
Multi-agent systems, (150) 237
Multiattribute utility theory, (151) 569
Multiattribute value theory, (145) 645
Multicast routing, (147) 405
Multicommodity flows, (146) 444
Multicriteria, (145) 382, (147) 137
Multicriteria analysis, (145) 665, (148) 14
Multi-criteria analysis, (144) 397, (148) 102, 116, 534
Multicriteria decision aid, (145) 287
Multi-criteria decision analysis, (150) 496
Multicriteria decision making, (145) 92, (147) 108, (148) 28
Multicriteria optimization, (144) 12, (148) 480, (151) 119
Multi-criteria optimization, (149) 77
Multi-depot vehicle routing problem, (150) 370
Multifactor method, (150) 482
Multiminima functions, (148) 335
Multi-mode, (144) 348, (149) 302
Multiobjective, (147) 117
Multiobjective combinatorial optimization, (145) 509
Multi-objective evolutionary algorithms, (149) 77
Multiobjective fuzzy linear programming, (149) 654
Multiobjective programming, (144) 459
Multiobjective symmetric duality, (144) 492
Multiple attribute decision making, (145) 329
Multiple attribute decision making (MADM), (145) 317
Multiple comparisons, (148) 514
Multiple criteria, (144) 429, (148) 80
Multiple criteria analysis, (144) 224, (145) 496, 645, (146) 199, 517, (147) 72, (148) 56, (150) 194, 204, 253, 640, (151) 103, 569
Multiple criteria decision making, (149) 688, (150) 496
Multiple criteria decision-making, (147) 117
Multiple criteria methodology, (145) 273
Multiple objective, (146) 460
Multiple objective programming, (147) 94, 657, (149) 17, (150) 496, 640
Multiple time periods, (150) 672
Multiple tree routing, (147) 405
Multiple use forest management, (148) 102
Multiprocessor tasks, (149) 377
Multi-product flowline, (147) 591
Multi-stage production, (149) 448
Multistage scenario tree, (151) 503
Multistage/serial production systems, (145) 621
Multi-state elements, (150) 406
Multivariate statistics, (145) 121, 471, (147) 51, (151) 53
Mutual funds, (151) 617
Mutually complementary merchandises, (150) 601

Nadir points, (151) 119
Nash equilibrium, (147) 32
Natural resources, (145) 165
Near consistent, (145) 85
Negative binomial distribution, (150) 420
Negative scores, (148) 28
Negotiations, (145) 695
Neighbor games, (146) 1
Net present value, (148) 604
Network completion time, (145) 394
Network design, (148) 1, (151) 280
Network flows, (150) 585
Networks, (146) 517, (151) 474
Neural network, (147) 156
Neural networks, (145) 14, (146) 115, 650, (150) 101, (151) 481
New product series, (149) 102
Newsboy problem, (144) 659, (149) 448
Newsvendor model, (151) 12
NHPP, (145) 443
Nitrate pollution, (147) 217
Nonconvex programming, (147) 94
Non-differentiable programming, (144) 554
Non-expected utility, (145) 216
Non-homogeneity, (144) 530
Nonhomogeneous Poisson process, (149) 475
Nonlinear programming, (146) 19, 101, (147) 17, (148) 426, (149) 557
Non-linear programming, (145) 471, (150) 653, (151) 461
Nonparametric predictive inference, (145) 425
Nonregular objective functions, (149) 325
Non-shared resources, (147) 345
NP-complete problem, (145) 557
np Control chart, (149) 614
Nucleolus, (146) 1
Number of late jobs, (144) 1
Numerical experiments, (148) 323

Obnoxious facilities, (145) 483
Offsetting cycles, (150) 304
Olympic ranking, (148) 312
On-line distribution, (144) 646
On-line packing, (150) 281
On-line scheduling, (146) 403
Open-shop, (149) 344, (151) 307
Operational profile, (149) 459
Operations analysis, (147) 253
Operations management, (146) 233
Optimal contracts, (144) 440
Optimal control, (146) 553, (149) 448
Optimal matching, (148) 277
Optimal stopping, (151) 140, 153
Optimality conditions, (147) 405
Optimal-order quantity, (144) 68
Optimisation, (146) 460, (150) 101
Optimization, (145) 57, (146) 543, (150) 293, 370, (151) 25
Optimization theory, (145) 165
Optimum paths, (146) 67
Options pricing, (151) 193
Order, (145) 85
Order-based neighborhoods, (149) 325
Order delivery contracts, (151) 12
Ordered weighted averaging, (148) 80
Ordering policy, (149) 229
Ordinal data, (147) 117
Ordinal ranking, (148) 116
Ordinal relation, (146) 477
Ordinary lumpability, (148) 436
Organisational cultural readiness, (146) 374
Organization, (146) 258
Organization theory, (146) 315
Outer approximation, (148) 349
Outranking, (145) 645
Outranking methods, (148) 14

Package software implementation, (146) 315
Packing, (147) 365, (149) 533, (150) 281
Pairwise comparison methods, (145) 496
Pair-wise fuzzy dominance, (144) 412
Panel data, (148) 257
Parallel computing, (149) 377, (151) 1
Parallel dedicated machines, (147) 345
Parallel machines, (146) 498, (147) 665, (148) 205, (149) 355, 523
Parallel processors, (149) 404
Parallel tasks, (149) 377
Parameter design, (151) 167
Parameter estimation, (150) 181, (151) 552
Parametric distance functions, (147) 165
Parametric packing, (150) 281
Pareto-optimal paths, (151) 103
Partial backlogging, (147) 549
Passive fund management, (148) 621
Pattern generation, (146) 388
Pattern minimization, (146) 388
PCB manufacturing, (150) 370
Performance, (144) 513, (148) 166
Performance analysis, (151) 181
Performance evaluation, (149) 390, (150) 482
Periodic review, (149) 229
Perishable good, (144) 677
Perishable inventory, (144) 68
Perishable product, (144) 128
Persistence, (148) 247
p-Center, (149) 53
PERT, (147) 266
Planar, (146) 517
Planning, (144) 613
Plant layout, (147) 128
Point-to-multipoint network flow, (147) 405
Poisson models, (148) 268
Policy-performance, (144) 194
Political districting, (144) 12
Polling, (149) 588
Polyhedra, (147) 671
Pooling, (145) 569
Population search methods, (151) 247
Population-based metaheuristics, (151) 352
Portfolio analysis, (150) 496
Portfolio optimization, (145) 136, (150) 572
Portfolio selection, (148) 467, (150) 546
Possibility theory, (147) 231, 297, (148) 467
Power index, (149) 676
Precedence constraints, (149) 404
Predictive capability assessment, (145) 455
Predictive data mining, (145) 239
Pre-emption, (144) 209
Preemptive priority, (144) 480
Preemptive scheduling, (148) 205
Preference classes, (144) 429
Preference modeling, (145) 92
Price posting, (144) 68
Pricing, (144) 677, (147) 32, 530, (149) 557, (150) 293, 653
Principal agent theory, (150) 237
Principal eigenvector, (145) 85
Prioritisation, (150) 32
Priority, (145) 85
Priority classes, (146) 181
Probabilistic constraints, (147) 217
Probabilistic programming, (147) 217
Probability, (150) 46
Probability space optimization, (144) 333
Problem formulation, (145) 273
Problem reduction, (145) 606
Process control, (149) 197
Procurement, (146) 339
Product development, (149) 102
Product perishability, (149) 197
Product positioning, (146) 621
Product pricing, (144) 68
Production, (149) 131, (150) 293
Production differentiation, (144) 128
Production/inventory system, (145) 635
Production planning, (149) 430
Production smoothing, (147) 567
Production yield improvement, (145) 621
Productivity, (146) 543
Productivity and competitiveness, (144) 306
Product-performance, (144) 194
Profit, (147) 558
0–1 Programming problems, (144) 581
Progress payments, (148) 604
Project analysis and evaluation, (145) 287
Project management, (146) 115, 241, (147) 253, (149) 430, (151) 167
Project management and scheduling, (144) 348, (146) 315, (148) 192
Project scheduling, (148) 604, (149) 268, 325
Properly efficient solutions, (144) 492
Purchasing, (146) 543, (149) 557, (151) 38

Quadratic portfolios, (150) 529
Quadratic programming, (148) 56, (150) 546
Qualitative factors, (150) 437
Qualitative research, (144) 321
Quality assurance, (146) 596
Quality control, (149) 614, (150) 420
Quality costs, (149) 197
Quantitative logistics, (148) 277
Quantity and volume discounts, (149) 571
Quantity discounts, (149) 557
Quasi-renewal process, (149) 475
Question selection, (148) 525
Questionnaire survey, (146) 365
Queue length, (147) 511
Queue with arrival acceptance windows, (147) 511
Queueing, (144) 157, 166, (145) 403, 425, (147) 17, 32, 464, (149) 625, (151) 181

Ranked voting data, (151) 233
Ranking methods, (147) 657
Ranking of candidates, (151) 233
Rationing, (144) 128
Raw material flow, (144) 237
Redeployment, (147) 451
Reduction, (149) 355
Redundant resources, (149) 314
Reference point method, (151) 103
Reference solution updating, (144) 581
Reference solutions, (144) 581
Regional development, (145) 121
Regional integration and the Öresund bridge, (144) 247
Regression, (145) 14, (146) 433, (148) 426, 514, (151) 53
Regression metamodels, (145) 455, (150) 437
Regularity, (149) 676
Regulating point process, (149) 625
Relationship, (144) 257
Relationships, (144) 280
Release times, (148) 591
Reliability, (149) 459
Reliability optimization, (149) 475
Relocation, (147) 451
Remanufacturing, (149) 540, (151) 536
Renewal process, (149) 625
Renewal theorem, (150) 451
Repairs, (149) 588
Replacement, (148) 233, (150) 451
Replenishment rule, (147) 567
Rescheduling, (149) 523
Research quality, (144) 321
Reserve selection, (150) 640
Resource allocation, (144) 224, (147) 198, (149) 325, (150) 67
Resource constrained project scheduling, (149) 314
Resource constraints, (149) 268
Resource selection, (151) 167
Resource sharing, (147) 464
Resource-constrained, (144) 348

Resource-constrained project scheduling, (149) 249, 282
Resource-constrained project scheduling problem, (149) 302
Retailer promotion support program, (150) 395
Retailing, (147) 530
Returns to scale, (144) 108
Reverse distribution, (150) 128
Reverse logistics, (146) 553, (147) 62, (151) 25, 38, 536
Risk, (150) 516
Risk analysis, (145) 109, 136, (148) 410, 452, (150) 529, (151) 569
Risk grouping, (150) 81
Risk management, (150) 529
Risk measures, (150) 572
Risk preferences, (151) 224
Risk–value models, (145) 216
Road network, (144) 565
Robust regression, (148) 514
Robust scheduling, (149) 249
Robustness and sensitivity analysis, (148) 452
Rough sets, (148) 467
Routing, (144) 27, (146) 67, (147) 629, (148) 559, (150) 115, (151) 1, 520
Run length, (149) 614

Sales promotion design, (150) 672
Sample size, (149) 614
SAP, (146) 274
Scale efficiency indicator, (144) 108
Scale elasticity, (144) 108
Scenarios, (148) 452
Scheduled queue, (147) 511
Scheduling, (144) 613, (145) 45, (146) 403, (147) 231, 266, 281, 297, 644, 665, (148) 302, 591, (149) 302, 344, 355, 377, 404, 499, 513, 523, (150) 32, (151) 296, 307, 415, 447, 481
Scheduling problems, (147) 312
Scheduling theory, (145) 14, 57
Screening, (150) 19
Search and ambush, (145) 685
Search theory, (145) 685, (150) 253
Second mover advantage, (144) 209
Second order F-convexity, (144) 554
Second order symmetric dual model, (144) 554
Secretary problem, (151) 140
Securities firms, (150) 466
Self-healing rings, (151) 280
Semi-obnoxious, (146) 517
Semi-regenerative process, (150) 451
Semivalue, (149) 676
Sensitivity analysis, (149) 35
Sequence-dependent setup times, (149) 513
Service location, (147) 613
Service operations, (147) 613
Set covering, (149) 53
Shared capacity, (150) 304
Shared-data, (145) 256
Shop, (149) 355
Shortest path, (144) 27, 565
Shortest route problem, (145) 72
Side constraints, (150) 585
Signed distance, (148) 401, (150) 601
Simple game, (149) 676
Simplex algorithm, (150) 585
Simplex method, (149) 1
Simplex search, (148) 335
Simplex type algorithms, (148) 323
Simulated annealing, (145) 72, 530, (147) 484, (149) 268, (150) 546, 653, (151) 400, 434
Simulation, (144) 530, (145) 136, 455, (146) 35, 156, 433, (147) 187, (148) 268, (150) 53, 101, 529, (151) 415, 552
Simulation modelling, (150) 81
Simulations, (148) 247
Simultaneous comparisons, (148) 514
Single machine, (147) 281, 665, (151) 296
Single machine scheduling, (144) 1, 598
Single period products, (151) 38
Small second-order designs, (145) 455
Software components, (146) 339
Software evaluation, (145) 273
Software frameworks, (146) 339
Software reliability, (145) 443, (149) 475
Software testing, (149) 475
Source-of-knowledge-data, (145) 256
Space allocation, (148) 92
Splitting variables representation, (151) 503
Sports, (148) 277
Sports management, (148) 302
Stability intervals, (145) 382
Stackelberg equilibrium, (149) 47
Staff dimensioning, (147) 464
Stationary distribution, (147) 522, (149) 625
Steiner tree problem, (147) 405
Steiner trees, (147) 671
Stochastic automata networks, (148) 436
Stochastic decomposition, (144) 157
Stochastic demand, (149) 438
Stochastic dynamic networks, (146) 67
Stochastic flow shop, (151) 415
Stochastic frontier, (151) 617
Stochastic frontier model, (147) 499
Stochastic inventory system, (146) 529
Stochastic location problems, (149) 47
Stochastic lot-sizing, (150) 163
Stochastic (max, +) algebra, (148) 644
Stochastic network, (145) 394
Stochastic optimization, (146) 35
Stochastic process, (150) 181
Stochastic process yield, (149) 540
Stochastic processes, (144) 138, (145) 136, (147) 146, (148) 152, (149) 459, 625, (150) 529, (151) 80
Stochastic programming, (145) 665, (147) 217, (150) 237, (151) 503, 602
Strategic timing, (144) 209
Structural equation modeling, (146) 130, 596, (151) 53
Structural mechanism, (145) 394
Subcontractor, (147) 297
Sub-gradient optimization, (148) 92
Subproblem feasibility, (148) 570
Substitutable items, (145) 585
Substitution, (149) 438
Sum of squared errors (SSE), (145) 443
Supplier responsiveness, (149) 540
Supply, (148) 374
Supply chain coordination, (151) 12
Supply chain management, (144) 237, 257, 270, 280, 306, 629, (146) 216, 284, 339, 634, (147) 530, 567, (148) 363, (149) 185, (150) 237, 395
Survey methodology, (146) 302
Survey research, (146) 130
Survivability, (151) 280
Swedish industry, (146) 365
Symmetric duality, (148) 48
System dynamics, (151) 552
System reliability, (147) 430
System survivability, (150) 406
Systems dynamics, (145) 165, (147) 567

Tabu search, (144) 379, (148) 559, (149) 249, 282, (150) 150, (151) 280, 307, 333, 365, 389, 400
Tabu search heuristic, (144) 12
Target setting, (147) 198
Taxonomy, (146) 352
Technical efficiency, (147) 165
Technological changes, (144) 237
Technology, (146) 258
Technology investment, (144) 209
Telecommunications, (146) 181, (147) 146, (148) 126, (151) 280
Temporal characteristics, (147) 253
Tennis, (148) 257
The modelling process, (145) 202
Thin quad flat pack, (147) 156
Three-dimensional packing, (150) 281
Threshold, (144) 157
Thresholds, (147) 137

Tightening 0-1 models, (149) 65
Time transportation, (146) 460
Time window, (144) 565
Time windows, (149) 377
Time-dependent, (144) 379
Time-dependent traveling salesman problem, (151) 400
Time-indexed constraints, (144) 613
Time-indexed formulation, (148) 591
Timetabling, (148) 546
Time-varying demand, (147) 549
Total completion time, (148) 205
Total Quality Management, (146) 130
Trade-offs, (150) 204
Traffic, (147) 146
Traffic light, (144) 565
Transient distribution, (149) 625
Transportation, (144) 83, 295, 379, 560, (146) 67, (148) 92, 644, (150) 194, 220, (151) 520, 586
Transportation problem, (144) 560, (148) 277
Transport-growth, (144) 295
Transporting robot, (145) 31
Transshipments, (148) 384
Traveling salesman, (145) 557
Travelling salesman, (147) 671
Traveling salesman problem, (145) 72
TU-games, (148) 494
Twin node families, (151) 503
Two-dimensional orthogonal packing problem, (145) 530

UET, (146) 403
Uncapacitated facility location, (150) 150
Uncertain orders, (147) 297
Uncertainty, (147) 231
Uncertainty modeling, (145) 221, (151) 153
Uncertainty modelling, (146) 433
Unit execution time, (149) 344
Unit processing time, (149) 355
Universal generating function, (150) 406
U-shaped lines, (145) 403
Utility theory, (145) 109, (151) 224

Validity, (144) 321
Valuation of price, (145) 221, (151) 153
τ-Value, (148) 494
Value at risk, (150) 516
Value-at-risk, (150) 529
Value efficiency, (149) 688
Value function, (149) 688
Value of information, (146) 634
Variable neighborhood, (151) 365
Variable neighborhood search, (151) 379
Variable neighbourhood search, (151) 389
Variable selection, (146) 115
Variogram, (150) 181
Vector optimization, (149) 641
Vector-convexlikeness, (149) 641
Vehicle routing, (144) 379
Vehicle routing problem, (151) 352
Vehicle routing problem with time windows, (148) 559, (150) 115
Vendor–buyer models, (149) 571
Venture capitalists, (144) 440
Visual interactive modeling, (144) 224
VLSI design, (149) 533

Waiting-lists, (150) 32
Waiting time, (147) 511
Warranty, (149) 131
Water industry, (146) 274
Weak efficiency, (149) 641
Weighted aggregation, (145) 329
Weighted matching, (149) 77
Weighted number of late jobs, (148) 591
Weighted tardy jobs, (151) 296
Weight-restricted models, (144) 454
Workforce development, (146) 596
Workload, (148) 166
Workload pattern, (148) 116
Worst case analysis, (146) 403
Worst-case analysis, (147) 345, (149) 404

Zero sum gains, (148) 312

Available online at www.sciencedirect.com
SCIENCE DIRECT®
ELSEVIER
European Journal of Operational Research 151 (2003) 656–674
EUROPEAN JOURNAL OF OPERATIONAL RESEARCH
www.elsevier.com/locate/dsw

Author Index
Volumes 144–151 (2003)

Aastrup, J., see Halldórsson, Á. 144 (2003) 321
Abad, P.L., Optimal pricing and lot-sizing under conditions of perishability, finite production and partial backordering and lost sale 144 (2003) 677
Abdinnour-Helm, S., M.L. Lengnick-Hall and C.A. Lengnick-Hall, Pre-implementation attitudes and organizational readiness for implementing an Enterprise Resource Planning system 146 (2003) 258
Ackermann, F., see Williams, T. 148 (2003) 192
Adán, M. and V. Novo, Weak efficiency in vector optimization using a closure of algebraic type under cone-convexlikeness 149 (2003) 641
Agarwal, A., H. Pirkul and V.S. Jacob, Augmented neural networks for task scheduling 151 (2003) 481
Aguarón, J., M.T. Escobar and J.M. Moreno-Jiménez, Consistency stability intervals for a judgement in AHP decision support systems 145 (2003) 382
Aguarón, J. and J.M. Moreno-Jiménez, The geometric consistency index: Approximated thresholds 147 (2003) 137
Akkermans, H.A., P. Bogerd, E. Yücesan and L.N. van Wassenhove, The impact of ERP on supply chain management: Exploratory findings from a European Delphi study 146 (2003) 284
Aksen, D., K. Altınkemer and S. Chand, The single-item lot-sizing problem with immediate lost sales 147 (2003) 558
Akşin, O.Z. and P.T. Harker, Capacity sizing in the presence of a common shared resource: Dimensioning an inbound call center 147 (2003) 464
Alagöz, O. and M. Azizoğlu, Rescheduling of identical parallel machines under machine eligibility constraints 149 (2003) 523
Aldin, N. and F. Stahre, Electronic commerce, marketing channels and logistics platforms—a wholesaler perspective 144 (2003) 270
Aleskerov, F., H. Ersel and R. Yolalan, Personnel allocation among bank branches using a two-stage multicriterial approach 148 (2003) 116
Al-Khayyal, F.A., see Van Voorhis, T. 148 (2003) 349
Allahverdi, A., The two- and m-machine flowshop scheduling problems with bicriteria of makespan and mean flowtime 147 (2003) 373
Allet, S., Handling flexibility in a "generalised job shop" with a fuzzy approach 147 (2003) 312
Al-Mashari, M., A. Al-Mudimigh and M. Zairi, Enterprise resource planning: A taxonomy of critical factors 146 (2003) 352
Al-Mudimigh, A., see Al-Mashari, M. 146 (2003) 352
Aloi, L., see Caruso, C. 149 (2003) 53
Alonso-Ayuso, A., see Vitoriano, B. 144 (2003) 613
Alonso-Ayuso, A., L.F. Escudero and M.T. Ortuño, BFC, A branch-and-fix coordination algorithmic framework for solving some types of stochastic pure and mixed 0–1 programs 151 (2003) 503
Altınkemer, K., see Aksen, D. 147 (2003) 558
Altınkemer, K., see Kazaz, B. 150 (2003) 370
Altinkemer, K. and I. Bose, Asynchronous transfer mode networks with parallel links and multiple service classes 146 (2003) 181
Alvarez, F. and E. Cerda, Learning by doing in a T-period production planning: Analytical solution 150 (2003) 353
Andersen, K.A., see Skriver, A.J.V. 146 (2003) 517
Anderson, M., see Jenkins, L. 147 (2003) 51
Annaert, J., J. van den Broeck and R. Vander Vennet, Determinants of mutual fund underperformance: A Bayesian stochastic frontier approach 151 (2003) 617
Antunes, C.H., see Borges, A.R. 145 (2003) 304

doi:10.1016/S0377-2217(03)00470-3

Aouam, T., S.I. Chang and E.S. Lee, Fuzzy MADM: An outranking method 145 (2003) 317
Apeland, S. and P.A. Scarf, A fully subjective approach to modelling inspection maintenance 148 (2003) 410
Armony, M. and M. Haviv, Price and delay competition between two service providers 147 (2003) 32
Arriaza, M., see Gómez-Limón, J.A. 151 (2003) 569
Artigues, C., P. Michelon and S. Reusser, Insertion techniques for static and dynamic resource-constrained project scheduling 149 (2003) 249
Ash, C.G. and J.M. Burn, A strategic framework for the management of ERP enabled e-business change 146 (2003) 374
Avanthay, C., A. Hertz and N. Zufferey, A variable neighborhood search for graph coloring 151 (2003) 379
Avouris, N., see Daskalaki, S. 145 (2003) 239
Axsäter, S., Evaluation of unidirectional lateral transshipments and substitutions in inventory systems 149 (2003) 438
Ayhan, H., see de Kort, A.F. 148 (2003) 644
Azaron, A. and F. Kianfar, Dynamic shortest path in stochastic dynamic networks: Ship routing problem 144 (2003) 138
Azaron, A. and S.M.T. Fatemi Ghomi, Optimal control of service rates and arrivals in Jackson networks 147 (2003) 17
Azibi, R. and D. Vanderpooten, Aggregation of dispersed consequences for constructing criteria: The evaluation of flood risk reduction strategies 144 (2003) 397
Azizoğlu, M., see Alagöz, O. 149 (2003) 523
Azizoglu, M., Preemptive scheduling on identical parallel machines subject to deadlines 148 (2003) 205

Bachrach, D.G., see Bendoly, E. 148 (2003) 534
Bailie, A., see Jaccard, M. 145 (2003) 148
Bajmoczy, N., see Rauner, M.S. 150 (2003) 3
Ballestin, F., see Valls, V. 149 (2003) 282
Baptiste, P., On minimizing the weighted number of late jobs in unit execution time open-shops 149 (2003) 344
Baptiste, P., L. Peridy and E. Pinson, A branch and bound to minimize the number of late jobs on a single machine with release time constraints 144 (2003) 1
Bartholomew-Biggs, M.C., S.C. Parkhurst and S.P. Wilson, Global optimization approaches to an aircraft routing problem 146 (2003) 417
Batmaz, İ., see Tunali, S. 150 (2003) 437
Batmaz, İ. and S. Tunali, Small response surface designs for metamodel estimation 145 (2003) 455
Bazgan, C. and V.Th. Paschos, Differential approximation for optimal satisfiability and related problems 147 (2003) 397
Bazzana, F., see Rizzi, L. 145 (2003) 363
Beasley, J.E., Allocating fixed costs and resources via data envelopment analysis 147 (2003) 198
Beasley, J.E., N. Meade and T.-J. Chang, An evolutionary heuristic for the index tracking problem 148 (2003) 621
Benati, S., The optimal portfolio problem with coherent risk measure constraints 150 (2003) 572
Bendiksen, B.I. and B. Dreyer, Technological changes—the impact on the raw material flow and production 144 (2003) 237
Bendoly, E., see Jacobs, F.R. 146 (2003) 233
Bendoly, E. and D.G. Bachrach, A process-based model for priority convergence in multi-period group decision-making 148 (2003) 534
Benton, W.C., see Li, L. 146 (2003) 596
Benton, W.C., see Murthy, N.N. 150 (2003) 304
Benton, W.C., see Rubin, P.A. 149 (2003) 557
Bérenguer, C., see Dieulle, L. 150 (2003) 451
Berger, A.N., The efficiency effects of a single market for financial services in Europe 150 (2003) 466
Berman, O., D. Krass and Z. Drezner, The gradual covering decay location problem on a network 151 (2003) 474
Beullens, P., L. Muyldermans, D. Cattrysse and D. Van Oudheusden, A guided local search heuristic for the capacitated arc routing problem 147 (2003) 629
Bhatia, D. and A. Sharma, New-invexity type conditions with applications to constrained dynamic games 148 (2003) 48
Bhattacharya, S., V. Krishnan and V. Mahajan, Operationalizing technology improvements in product development decision-making 149 (2003) 102
Bhattacharyya, S. and M.D. Troutt, Genetic search over probability spaces 144 (2003) 333
Birgin, E.G., J.M. Martinez and D.P. Ronconi, Minimization subproblems and heuristics for an applied clustering problem 146 (2003) 19
Bish, E.K., A multiple-crane-constrained scheduling problem in a container terminal 144 (2003) 83
Błażewicz, J., P. Dell'Olmo, M. Drozdowski and P. Mączka, Scheduling multiprocessor tasks on parallel processors with limited availability 149 (2003) 377
Bogerd, P., see Akkermans, H.A. 146 (2003) 284
Boon, B.H. and G. Sierksma, Team formation: Matching quality supply and quality demand 148 (2003) 277

Borges, A.R. and C.H. Antunes, A fuzzy multiple objective decision support model for energy-economy planning 145 (2003) 304
Borm, P., D. Vermeulen and M. Voorneveld, The structure of the set of equilibria for two person multicriteria games 148 (2003) 480
Bose, I., see Altinkemer, K. 146 (2003) 181
Boucherie, R.J., see Ule, A. 147 (2003) 146
Bouleimen, K. and H. Lecocq, A new efficient simulated annealing algorithm for the resource-constrained project scheduling problem and its multiple mode version 149 (2003) 268
Bouyssou, D., see Cooper, W.W. 149 (2003) 245
Bozkaya, B., E. Erkut and G. Laporte, A tabu search heuristic and adaptive memory procedure for political districting 144 (2003) 12
Brailsford, S. and B. Schmidt, Towards incorporating human behaviour in models of health care systems: An approach using discrete event simulation 150 (2003) 19
Brotcorne, L., G. Laporte and F. Semet, Ambulance location and relocation models 147 (2003) 451
Brouk, E., E. Furems, A. Lotov and A.B. Petrovsky, Oleg I. Larichev in Memoriam 20.09.1934–19.01.2003 150 (2003) 233
Brucker, P. and S. Knust, Editorial: Sequencing and scheduling 149 (2003) 247
Brucker, P. and S. Knust, Lower bounds for resource-constrained project scheduling problems 149 (2003) 302
Bruinshoofd, A. and B. ter Weel, Manager to go? Performance dips reconsidered with evidence from Dutch football 148 (2003) 233
Buchanan, J. and L. Gardiner, A comparison of two reference point methods in multiple objective mathematical programming 149 (2003) 17
Bulfin, R.L., see M'Hallah, R. 145 (2003) 45
Burak Keha, A., see Köksalan, M. 145 (2003) 543
Burkard, R.E. and H. Dollani, Center problems with pos/neg weights on trees 145 (2003) 483
Burn, J.M., see Ash, C.G. 146 (2003) 374

Cabedo Semper, J.D. and I. Moya Clemente, Value at risk calculation through ARCH factor methodology: Proposal and comparative analysis 150 (2003) 516
Calvete, H.I., Network simplex algorithm for the general equal flow problem 150 (2003) 585
Campos Rodríguez, C.M. and J.A. Moreno Pérez, Relaxation of the Condorcet and Simpson conditions in voting location 145 (2003) 673
Cangalović, M., see Mladenović, N. 151 (2003) 389
Captivo, M.E., see Cortinhal, M.J. 151 (2003) 333
Carlier, J. and E. Néron, On linear lower bounds for the resource constrained project scheduling problem 149 (2003) 314
Carreras, F., J. Freixas and M.A. Puente, Semivalues as power indices 149 (2003) 676
Caruso, C., A. Colorni and L. Aloi, Dominant, an algorithm for the p-center problem 149 (2003) 53
Casas-Méndez, B., I. García-Jurado, A. van den Nouweland and M. Vázquez-Brage, An extension of the τ-value to games with coalition structures 148 (2003) 494
Castellacci, G. and M.J. Siclari, The practice of Delta–Gamma VaR: Implementing the quadratic portfolio model 150 (2003) 529
Cattani, K.D. and G.C. Souza, Good buy? Delaying end-of-life purchases 146 (2003) 216
Cattrysse, D., see Beullens, P. 147 (2003) 629
Cerda, E., see Alvarez, F. 150 (2003) 353
Chan, C.K., see Leung, T.W. 145 (2003) 530
Chan, G.H. and Y. Song, A dynamic analysis of the single-item periodic stochastic inventory system with order capacity 146 (2003) 529
Chan, L.Y., C.D. Lai, M. Xie and T.N. Goh, A two-stage decision procedure for monitoring processes with low fraction nonconforming 150 (2003) 420
Chanas, S. and A. Kasperski, On two single machine scheduling problems with fuzzy processing times and fuzzy due dates 147 (2003) 281
Chand, S., see Aksen, D. 147 (2003) 558
Chang, D.-S., see Tang, K. 149 (2003) 197
Chang, H.-C., see Yao, J.-S. 150 (2003) 601
Chang, N.B., see Wu, C.C. 145 (2003) 175
Chang, S.I., see Aouam, T. 145 (2003) 317
Chang, T.-J., see Beasley, J.E. 148 (2003) 621
Chauhan, S.S. and J.-M. Proth, The concave cost supply problem 148 (2003) 374
Che, A., C. Chu and E. Levner, A polynomial algorithm for 2-degree cyclic robot scheduling 145 (2003) 31
Cheang, B., H. Li, A. Lim and B. Rodrigues, Nurse rostering problems—a bibliographic survey 151 (2003) 447

Chelouah, R. and P. Siarry, Genetic and Nelder–Mead algorithms hybridized for a more accurate global optimization of continuous multiminima functions 148 (2003) 335
Chen, H. and P.B. Luh, An alternative framework to Lagrangian relaxation approach for job shop scheduling 149 (2003) 499
Chen, M.-S. and M.-C. Chu, The analysis of optimal control model in matching problem between manufacturing and marketing 150 (2003) 293
Chen, S., see Olinsky, A. 151 (2003) 53
Chen, Y.-L. and H.-H. Yang, Minimization of travel time and weighted number of stops in a traffic-light network 144 (2003) 565
Cheng, T.C.E., see Oğuz, C. 149 (2003) 390
Cheung, K.L. and X.-M. Yuan, An infinite horizon inventory model with periodic order commitment 146 (2003) 52
Chiang, C., Optimal replenishment for a periodic review inventory system with two supply modes 149 (2003) 229
Chiang, J., see Yao, J.-S. 148 (2003) 401
Chiang, T.-L. and C.-T. Su, Optimization of TQFP molding process using neuro-fuzzy-GA approach 147 (2003) 156
Chu, C., see Che, A. 145 (2003) 31
Chu, M.-C., see Chen, M.-S. 150 (2003) 293
Chu, S.C.K., C.K.Y. Lin and S.S. Lam, Hospital lift system simulator: A performance evaluator–predictor 146 (2003) 156
Chun, Y.H., Optimal pricing and ordering policies for perishable commodities 144 (2003) 68
Chyu, C.-L., see Kao, C. 148 (2003) 426
Climaco, J., see Mousseau, V. 147 (2003) 72
Colorni, A., see Caruso, C. 149 (2003) 53
Coolen, F.P.A. and P. Coolen-Schrijner, A nonparametric predictive method for queues 145 (2003) 425
Coolen-Schrijner, P., see Coolen, F.P.A. 145 (2003) 425
Cooper, W.W., L.M. Seiford, K. Tone and D. Bouyssou, Book Review 149 (2003) 245
Cortinhal, M.J. and M.E. Captivo, Upper and lower bounds for the single source capacitated location problem 151 (2003) 333
Costa, J.P., P. Melo, P. Godinho and L.C. Dias, The AGAP system: A GDSS for project analysis and evaluation 145 (2003) 287
Crama, Y. and M. Schyns, Simulated annealing for complex portfolio selection problems 150 (2003) 546
Cupers, S., see Vandaele, N. 151 (2003) 181
Curkovic, S., Environmentally Responsible Manufacturing: The development and validation of a measurement model 146 (2003) 130
Cvsa, V., see Gilbert, S.M. 150 (2003) 617

Daniel, P., see Utley, M. 150 (2003) 92
Daskalaki, S., I. Kopanas, M. Goudara and N. Avouris, Data mining for decision support on customer insolvency in telecommunications business 145 (2003) 239
Dauzère-Pérès, S., see Sevaux, M. 151 (2003) 296
Davies, C. and P. Lingras, Genetic algorithms for rerouting shortest paths in dynamic and stochastic networks 144 (2003) 27
Davies, R., P. Roderick and J. Raftery, The evaluation of disease prevention and treatment using simulation models 150 (2003) 53
Davis, K., see Utley, M. 150 (2003) 92
Dayar, T., see Gusak, O. 148 (2003) 436
De Angelis, V., G. Felici and P. Impelluso, Integrating simulation and optimisation in health care centre management 150 (2003) 101
De Baets, B., see Fortemps, Ph. 147 (2003) 229
de Kort, A.F., B. Heidergott and H. Ayhan, A probabilistic (max, +) approach for determining railway infrastructure capacity 148 (2003) 644
de Koster, R., see Vis, I.F.A. 147 (2003) 1
de Senna, V., see Harper, P.R. 150 (2003) 81
Deĭneko, V.G. and G.J. Woeginger, Complexity and approximability results for slicing floorplan designs 149 (2003) 533
Dejonckheere, J., S.M. Disney, M.R. Lambrecht and D.R. Towill, Measuring and avoiding the bullwhip effect: A control theoretic approach 147 (2003) 567
Dekker, R., see Vlachos, D. 151 (2003) 38
Dell'Olmo, P., see Błażewicz, J. 149 (2003) 377
Dell'Olmo, P. and G. Lulli, A new hierarchical architecture for Air Traffic Management: Optimisation of airway capacity in a Free Flight scenario 144 (2003) 179
Dellaert, N.P. and J. Jeunet, Randomized multi-level lot-sizing heuristics for general product structures 148 (2003) 211
Dellaert, N.P. and M.T. Melo, Approximate solutions for a stochastic lot-sizing problem with partial customer-order information 150 (2003) 163
Demeulemeester, E., see Vanhoucke, M. 148 (2003) 604

Dias, L., see Mousseau, V. 147 (2003) 72
Dias, L.C., see Costa, J.P. 145 (2003) 287
Diaz, A.R., A. Tchernykh and K.H. Ecker, Algorithms for dynamic scheduling of unit execution time tasks 146 (2003) 403
Dieulle, L., C. Bérenguer, A. Grall and M. Roussignol, Sequential condition-based maintenance scheduling for a deteriorating system 150 (2003) 451
Diponegoro, A. and B.R. Sarker, Flow distance reduction for a multi-product flowline with sets of identical machines 147 (2003) 591
Disney, S.M., see Dejonckheere, J. 147 (2003) 567
Dobson, S. and J. Goddard, Persistence in sequences of football match results: A Monte Carlo analysis 148 (2003) 247
Dollani, H., see Burkard, R.E. 145 (2003) 483
Drake, L. and R. Simper, The measurement of English and Welsh police force efficiency: A comparison of distance function models 147 (2003) 165
Drewes Nielsen, L., P. Homann Jespersen, T. Petersen and L. Gjesing Hansen, Freight transport growth—a theoretical and methodological framework 144 (2003) 295
Dreyer, B., see Bendiksen, B.I. 144 (2003) 237
Drezner, Z., see Berman, O. 151 (2003) 474
Drezner, Z., see Shiode, S. 149 (2003) 47
Drozdowski, M., see Błażewicz, J. 149 (2003) 377
Dubois, D., H. Fargier and Ph. Fortemps, Fuzzy scheduling: Modelling flexible constraints vs. coping with incomplete knowledge 147 (2003) 231
Dubois, D., H. Fargier and V. Galvagnon, On latest starting times and floats in activity networks with ill-known durations 147 (2003) 266

Ecker, K.H., see Díaz, A.R. 146 (2003) 403
Economou, A., On the control of a compound immigration process through total catastrophes 147 (2003) 522
Economou, A. and D. Fakinos, A continuous-time Markov chain under the influence of a regulating point process and applications in stochastic models with catastrophes 149 (2003) 625
Eden, C., see Williams, T. 148 (2003) 192
Eggers, J., D. Feillet, S. Kehl, M.O. Wagner and B. Yannou, Optimization of the keyboard arrangement problem using an Ant Colony algorithm 148 (2003) 672
Ehrgott, M. and A.J.V. Skriver, Solving biobjective combinatorial max-ordering problems by ranking methods and a two-phases approach 147 (2003) 657
Ehrgott, M. and D. Tenfelde-Podehl, Computation of ideal and Nadir values and implications for their use in MCDM methods 151 (2003) 119
Elitzur, R. and A. Gavious, A multi-period game theoretic model of venture capitalists and entrepreneurs 144 (2003) 440
Ercan, M.F., see Oğuz, C. 149 (2003) 390
Eriksson, D.M., A framework for the constitution of modelling processes: A proposition 145 (2003) 202
Erkut, E., see Bozkaya, B. 144 (2003) 12
Ersel, H., see Aleskerov, F. 148 (2003) 116
Erzegovesi, L., see Rizzi, L. 145 (2003) 363
Escobar, M.T., see Aguarón, J. 145 (2003) 382
Escudero, L.F., see Alonso-Ayuso, A. 151 (2003) 503
Escudero, L.F. and S. Muñoz, On identifying dominant cliques 149 (2003) 65
Evers, P.T., see Xu, K. 145 (2003) 569

Fakinos, D., see Economou, A. 149 (2003) 625
Färe, R. and V. Zelenyuk, On aggregate Farrell efficiencies 146 (2003) 615
Fang, S.-C., see Medaglia, A.L. 149 (2003) 77
Fargier, H., see Dubois, D. 147 (2003) 231
Fargier, H., see Dubois, D. 147 (2003) 266
Fatemi Ghomi, S.M.T., see Azaron, A. 147 (2003) 17
Fatemi Ghomi, S.M.T. and M. Rabbani, A new structural mechanism for reducibility of stochastic PERT networks 145 (2003) 394
Fawcett, R.H., see Kazana, V. 148 (2003) 102
Fedrizzi, M., see Rizzi, L. 145 (2003) 363
Feillet, D., see Eggers, J. 148 (2003) 672
Felici, G., see De Angelis, V. 150 (2003) 101

Feremans, C., M. Labbé and G. Laporte, Generalized network design problems 148 (2003) 1
Fernández, E. and J. Puerto, Multiobjective solution of the uncapacitated plant location problem 145 (2003) 509
Fernández-González, E., see Leyva-López, J.C. 148 (2003) 14
Ferrari, P., A method for choosing from among alternative transportation projects 150 (2003) 194
Ferrer, G., Yield information and supplier responsiveness in remanufacturing operations 149 (2003) 540
Figueira, J., see Mousseau, V. 147 (2003) 72
Fink, A. and S. Voß, Solving the continuous flow-shop scheduling problem by metaheuristics 151 (2003) 400
Firoozi, F. and J. Merrifield, An optimal timing model of water reallocation and reservoir construction 145 (2003) 165
Fischetti, M., G.R. Jacur and J.J.S. González, Optimisation of the interconnecting network of a UMTS radio mobile telephone system 144 (2003) 56
Fleischmann, M., see Mahadevan, B. 151 (2003) 536
Fleischmann, M. and R. Kuik, On optimal inventory control with independent stochastic item returns 151 (2003) 25
Flessa, S., Priorities and allocation of health care resources in developing countries: A case-study from the Mtwara region, Tanzania 150 (2003) 67
Fleszar, K. and K.S. Hindi, An enumerative heuristic and reduction methods for the assembly line balancing problem 145 (2003) 606
Fodor, J., see Fortemps, Ph. 147 (2003) 229
Forgó, F. and F. Szidarovszky, On the relation between the Nash bargaining solution and the weighting method 147 (2003) 108
Fortemps, Ph., see Dubois, D. 147 (2003) 231
Fortemps, Ph., see Stanciulescu, C. 149 (2003) 654
Fortemps, Ph., B. De Baets and J. J. Fodor, Ediorial: Fuzzy sets in scheduling and planning 147 (2003) 229
Fortz, B., P. Soriano and C. Wynants, A tabu search algorithm for self-healing ring network design 151 (2003) 280
Fourneau, J.-M., see Gusak, O. 148 (2003) 436
Frauendorfer, K. and M. Schürle, Management of non-maturing deposits by multistage stochastic programming 151 (2003) 602
Freixas, J., see Carreras, F. 149 (2003) 676
Fu, M.C., see Xu, K. 145 (2003) 569
Fukuyama, H., Scale characterizations in a DEA directional technology distance function framework 144 (2003) 108
Fung, Y.F., see Oğuz, C. 149 (2003) 390
Furems, E., see Brouk, E. 150 (2003) 233

Gallivan, S., How likely is it that a run of poor outcomes is unlikely? 150 (2003) 46
Gallivan, S., see Utley, M. 150 (2003) 92
Galvagnon, V., see Dubois, D. 147 (2003) 266
García-Jurado, I., see Casas-Méndez, B. 148 (2003) 494
Gardiner, L., see Buchanan, J. 149 (2003) 17
Gass, S.I. and P.G. Roy, The compromise hypersphere for multiobjective linear programming 144 (2003) 459
Gaury, E., see Kleijnen, J.P.C. 148 (2003) 452
Gavious, A., see Elitzur, R. 144 (2003) 440
Gelles, G.M., see Mitchell, D.W. 145 (2003) 109
Gendreau, M., see Ichoua, S. 144 (2003) 379
Geneste, L., B. Grabot and A. Letouzey, Scheduling uncertain orders in the customer–subcontractor context 147 (2003) 297
Georgopoulou, E., Y. Sarafidis, S. Mirasgedis, S. Zaimi and D.P. Lalas, A multiple criteria decision-aid approach in defining national priorities for greenhouse gases emissions reduction in the energy sector 146 (2003) 199
Ghiani, G., F. Guerriero, G. Laporte and R. Musmanno, Real-time vehicle routing: Solution concepts, algorithms and parallel computing strategies 151 (2003) 1
Ghosh, D., Neighborhood search heuristics for the uncapacitated facility location problem 150 (2003) 150
Giannoccaro, I., P. Pontrandolfo and B. Scozzi, A fuzzy echelon approach for inventory management in supply chains 149 (2003) 185
Gilbert, S.M. and V. Cvsa, Strategic commitment to price to stimulate downstream innovation in a supply chain 150 (2003) 617
Giri, B.C., see Goyal, S.K. 147 (2003) 549
Gjesing Hansen, L., see Drewes Nielsen, L. 144 (2003) 295
Gnanendran, K., J.K. Ho and R.P. Sundarraj, Stock selection heuristics for interdependent items 145 (2003) 585
Goddard, J., see Dobson, S. 148 (2003) 247
Godinho, P., see Costa, J.P. 145 (2003) 287
Goh, T.N., see Chan, L.Y. 150 (2003) 420
Gomes da Silva, C., see Mousseau, V. 147 (2003) 72
Gomes, E.G., see Lins, M.P.E. 148 (2003) 312

Gomez, A., see Varela, R. 145 (2003) 57
Gómez-Limón, J.A., M. Arriaza and L. Riesgo, An MCDM analysis of agricultural risk aversion 151 (2003) 569
Gong, L., see Tang, K. 149 (2003) 197
González, J.J.S., see Fischetti, M. 144 (2003) 56
Goudara, M., see Daskalaki, S. 145 (2003) 239
Gourgand, M., N. Grangeon and S. Norre, A contribution to the stochastic flow shop scheduling problem 151 (2003) 415
Goyal, S.K. and B.C. Giri, The production–inventory problem of a product with time varying demand, production and deterioration rates 147 (2003) 549
Grabisch, M., C. Labreuche and J.-C. Vansnick, On the extension of pseudo-Boolean functions for the aggregation of interacting criteria 148 (2003) 28
Grabot, B., see Geneste, L. 147 (2003) 297
Grall, A., see Dieulle, L. 150 (2003) 451
Granat, J. and F. Guerriero, The interactive analysis of the multicriteria shortest path problem by the reference point method 151 (2003) 103
Grangeon, N., see Gourgand, M. 151 (2003) 415
Grieger, M., Electronic marketplaces: A literature review and a call for supply chain management research 144 (2003) 280
Gronalt, M., R.F. Hartl and M. Reimann, New savings based algorithms for time constrained pickup and delivery of full truckloads 151 (2003) 520
Gruca, T.S. and B.R. Klemz, Optimal new product positioning: A genetic algorithm approach 146 (2003) 621
Grundstein, M., C. Rosenthal-Sabroux and A. Pachulski, Reinforcing decision aid by capitalizing on company's knowledge: Future prospects 145 (2003) 256
Guerriero, F., see Ghiani, G. 151 (2003) 1
Guerriero, F., see Granat, J. 151 (2003) 103
Gunasekaran, A., see Mandal, P. 146 (2003) 274
Gunnarsson, C. and S. Jonsson, Charge the relationships and gain loyalty effects: Turning the supply link alert to IT opportunities 144 (2003) 257
Guo, P. and H. Tanaka, Decision analysis based on fused double exponential possibility distributions 148 (2003) 467
Gupta, R., see Jayaraman, V. 147 (2003) 613
Gusak, O., T. Dayar and J.-M. Fourneau, Lumpable continuous-time stochastic automata networks 148 (2003) 436
Guu, S.-M. and A.X. Zhang, The finite multiple lot sizing problem with interrupted geometric yield and holding costs 145 (2003) 635

Haapalinna, I., How to allocate funds within the army 144 (2003) 224
Haas, D.A. and F.H. Murphy, Compensating for non-homogeneity in decision-making units in data envelopment analysis 144 (2003) 530
Hackman, S.T., see Thomas, D.J. 148 (2003) 363
Hadjinicola, G.C. and A.C. Soteriou, Reducing the cost of defects in multistage production systems: A budget allocation perspective 145 (2003) 621
Haft, R.R., see Umble, E.J. 146 (2003) 241
Hakonen, H., see Lahdelma, R. 148 (2003) 141
Halldórsson, Á. and J. Aastrup, Quality criteria for qualitative inquiries in logistics 144 (2003) 321
Hämäläinen, R.P., see Lainінen, P. 148 (2003) 514
Hamers, H., F. Klijn, T. Solymosi, S. Tijs and D. Vermeulen, On the nucleolus of neighbor games 146 (2003) 1
Harker, P.T., see Akşin, O.Z. 147 (2003) 464
Harkness, J. and C. ReVelle, Facility location with increasing production costs 145 (2003) 1
Harlow, L., see Olinsky, A. 151 (2003) 53
Harper, P.R. and A.K. Shahani, A decision support system for the care of HIV and AIDS patients in India 147 (2003) 187
Harper, P.R., M.G. Sayyad, V. de Senna, A.K. Shahani, C.S. Yajnik and K.M. Shelgikar, A systems modelling approach for the prevention and treatment of diabetic retinopathy 150 (2003) 81
Hartl, R.F., see Gronalt, M. 151 (2003) 520
Hartman, J.C., see Wu, P. 148 (2003) 570
Hassin, R., A. Levin and D. Morad, Lexicographic local search and the p-center problem 151 (2003) 265
Haviv, M., see Armony, M. 147 (2003) 32
Heidergott, B., see de Kort, A.F. 148 (2003) 644
Heilmann, R., A branch-and-bound procedure for the multi-mode resource-constrained project scheduling problem with minimum and maximum time lags 144 (2003) 348

Henderson, D., D.E. Vaughan, S.H. Jacobson, R.R. Wakefield and E.C. Sewell, Solving the shortest route cut and fill problem using simulated annealing 145 (2003) 72
Herroelen, W., see Vanhoucke, M. 148 (2003) 604
Hertz, A., see Avanthay, C. 151 (2003) 379
Hertz, A. and M. Widmer, Preface: Guidelines for the use of meta-heuristics in combinatorial optimization 151 (2003) 247
Hindi, K.S., see Fleszar, K. 145 (2003) 606
Ho, J.K., see Gnanendran, K. 145 (2003) 585
Ho, T.H., see Rhim, H. 149 (2003) 211
Ho, Y.-C., see Ozden, M. 146 (2003) 35
Holloway, H.A. and C.C. White III, Question selection for multi-attribute decision-aiding 148 (2003) 525
Homann Jespersen, P., see Drewes Nielsen, L. 144 (2003) 295
Hong, Y.-z., Local optimization of observed points with no need to observations 150 (2003) 181
Hsieh, C.-C., Optimal task allocation and hardware redundancy policies in distributed computing systems 147 (2003) 430
Hu, M.Y. and C. Tsoukalas, Explaining consumer choice through neural networks: The stacked generalization approach 146 (2003) 650
Huisman, K.J.M. and P.M. Kort, Strategic investment in technological innovations 144 (2003) 209
Humes Jr., C., see Queiroz, M. 146 (2003) 444
Hurley, W.J., Effects of multiple arbitrators on final-offer arbitration settlements 145 (2003) 660
Hwan Kim, Y., see Sup Sung, C. 147 (2003) 644

Ibaraki, T., see Umetani, S. 146 (2003) 388
Ichoua, S., M. Gendreau and J.-Y. Potvin, Vehicle dispatching with time-dependent travel times 144 (2003) 379
Impelluso, P., see De Angelis, V. 150 (2003) 101
Installé, M., see Stanciulescu, C. 149 (2003) 654
Iordanova, B.N., Air traffic knowledge management policy 146 (2003) 83
Ishii, H., see Obata, T. 151 (2003) 233

Jaccard, M., R. Loulou, A. Kanudia, J. Nyboer, A. Bailie and M. Labriet, Methodological contrasts in costing greenhouse gas abatement policies: Optimization and simulation modeling of micro-economic effects in Canada 145 (2003) 148
Jacob, V.S., see Agarwal, A. 151 (2003) 481
Jacobs, F.R. and E. Bendoly, Enterprise resource planning: Developments and directions for operations management research 146 (2003) 233
Jacobson, S.H., see Henderson, D. 145 (2003) 72
Jacur, G.R., see Fischetti, M. 144 (2003) 56
Janssens, G.K., see Sörensen, K. 151 (2003) 253
Jaszkiewicz, A. and P. Kominek, Genetic local search with distance preserving recombination operator for a vehicle routing problem 151 (2003) 352
Jayaraman, V. and A. Ross, A simulated annealing methodology to distribution network design and management 144 (2003) 629
Jayaraman, V., R. Gupta and H. Pirkul, Selecting hierarchical facilities in a service-operations environment 147 (2003) 613
Jayaraman, V., R.A. Patterson and E. Rolland, The design of reverse distribution networks: Models and solution procedures 150 (2003) 128
Jenkins, L. and M. Anderson, A multivariate statistical approach to reducing the number of variables in data envelopment analysis 147 (2003) 51
Jessop, A., Blockmodels with maximum concentration 148 (2003) 56
Jeunet, J., see Dellaert, N.P. 148 (2003) 211
John, M., see Panton, D. 146 (2003) 486
Jonsson, S., see Gunnarsson, C. 144 (2003) 257
Jordan, S., see Ku, C.-Y. 144 (2003) 166
Jørgensen, S., S. Taboubi and G. Zaccour, Retail promotions with negative brand image effects: Is cooperation possible? 150 (2003) 395
Joro, T., P. Korhonen and S. Zionts, An interactive approach to improve estimates of value efficiency in data envelopment analysis 149 (2003) 688
José Fernández-Sáez, M., see Zoroa, N. 145 (2003) 684

Kaliszewski, I., Dynamic parametric bounds on efficient outcomes in interactive multiple criteria decision making problems 147 (2003) 94
Kampas, A. and B. White, Probabilistic programming for nitrate pollution control: Comparing different probabilistic constraint approximations 147 (2003) 217
Kang, J. and S. Park, Algorithms for the variable sized bin packing problem 147 (2003) 365
Kanudia, A., see Jaccard, M. 145 (2003) 148
Kao, C. and C.-L. Chyu, Least-squares estimates in fuzzy regression analysis 148 (2003) 426
Karabatı, S. and S. Sayın, Assembly line balancing in a mixed-model sequencing environment with synchronous transfers 149 (2003) 417
Karasakal, E.K. and W. Michalowski, Incorporating wealth information into a multiple criteria decision making model 150 (2003) 204
Karmarkar, U.S., see Rhim, H. 149 (2003) 211
Kasabov, N., see Rizzi, L. 145 (2003) 363
Kasperski, A., see Chanas, S. 147 (2003) 281
Kato, K., see Sakawa, M. 144 (2003) 581
Kato, K., see Sakawa, M. 145 (2003) 665
Kazana, V., R.H. Fawcett and W.E.S. Mutch, A decision support modelling framework for multiple use forest management: The Queen Elizabeth Forest case study in Scotland 148 (2003) 102
Kazaz, B. and K. Altınkemer, Optimization of multi-feeder (depot) printed circuit board manufacturing with error guarantees 150 (2003) 370
Kehl, S., see Eggers, J. 148 (2003) 672
Keil, M., see Zhang, G.P. 146 (2003) 115
Kellerer, H. and V.A. Strusevich, Scheduling parallel dedicated machines under a single non-shared resource 147 (2003) 345
Keppo, J., see Vehviläinen, I. 145 (2003) 136
Khurana, S., see Suneja, S.K. 144 (2003) 492
Kianfar, F., see Azaron, A. 144 (2003) 138
Kiesmüller, G.P. and C.W. Scherer, Computational issues in a stochastic finite horizon one product recovery inventory model 146 (2003) 553
Kiesmüller, G.P., A new approach for controlling a hybrid stochastic manufacturing/remanufacturing system with inventories and different leadtimes 147 (2003) 62
Kim, K.H. and K.T. Park, A note on a dynamic space-allocation method for outbound containers 148 (2003) 92
Kim, T.-S. and H.-M. Park, Cycle analysis of a two-phase queueing model with threshold 144 (2003) 157
Kis, T., Job-shop scheduling with processing alternatives 151 (2003) 307
Klaassen, F.J.G.M. and J.R. Magnus, Forecasting the winner of a tennis match 148 (2003) 257
Kleijnen, J.P.C., see Vonk Noordegraaf, A. 146 (2003) 433
Kleijnen, J.P.C. and E. Gaury, Short-term robustness of production management systems: A case study 148 (2003) 452
Klemz, B.R., see Gruca, T.S. 146 (2003) 621
Klijn, F., see Hamers, H. 146 (2003) 1
Knust, S., see Brucker, P. 149 (2003) 247
Knust, S., see Brucker, P. 149 (2003) 302
Köksalan, M. and A. Burak Keha, Using genetic algorithms for single-machine bicriteria scheduling problems 145 (2003) 543
Köksalan, M. and C. Ulu, An interactive approach for placing alternatives in preference classes 144 (2003) 429
Kogan, K. and S. Lou, Multi-stage newsboy problem: A dynamic model 149 (2003) 448
Kominek, P., see Jaszkiewicz, A. 151 (2003) 352
Koning, R.H., G. Sierksma and S. van de Velde, Editorial: Introduction: Sport and Computers 148 (2003) 231
Koning, R.H., M. Koolhaas, G. Renes and G. Ridder, A simulation model for football championships 148 (2003) 268
Koolhaas, M., see Koning, R.H. 148 (2003) 268
Kopanas, I., see Daskalaki, S. 145 (2003) 239
Korhonen, P., see Joro, T. 149 (2003) 688
Kort, P.M., see Huisman, K.J.M. 144 (2003) 209
Kotzab, H., see Otto, A. 144 (2003) 306
Kovačević-Vujčić, V., see Mladenović, N. 151 (2003) 389
Krass, D., see Berman, O. 151 (2003) 474
Kraus, U.G. and C.A. Yano, Product line selection and pricing under a share-of-surplus choice model 150 (2003) 653
Krawiec, K., Book review 147 (2003) 448
Krishnan, V., see Bhattacharya, S. 149 (2003) 102
Ku, C.-Y. and S. Jordan, Near optimal admission control for multiserver loss queues in series 144 (2003) 166

Kuchta, D., see Triantis, K. 144 (2003) 412
Kuik, R., see Fleischmann, M. 151 (2003) 25
Kuo, C., see Yang, T. 147 (2003) 128
Kuosmanen, T. and T. Post, Measuring economic efficiency with incomplete price information 144 (2003) 454
Kuper, G.H. and E. Sterken, Endurance in speed skating: The development of world records 148 (2003) 293
Kuula, M., see Lahdelma, R. 145 (2003) 496
Kwan, R.S.K., see Li, J. 147 (2003) 334

Labbé, M., see Feremans, C. 148 (2003) 1
Labbé, M., G. Laporte and S. Martello, Upper bounds and algorithms for the maximum cardinality bin packing problem 149 (2003) 490
Labreuche, C., see Grabisch, M. 148 (2003) 28
Labriet, M., see Jaccard, M. 145 (2003) 148
Laguna, M., see Osorio, M.A. 151 (2003) 238
Lahdelma, R. and H. Hakonen, An efficient linear programming algorithm for combined heat and power production 148 (2003) 141
Lahdelma, R., K. Miettinen and P. Salminen, Ordinal criteria in stochastic multicriteria acceptability analysis (SMAA) 147 (2003) 117
Lahdelma, R., P. Salminen and M. Kuula, Testing the efficiency of two pairwise comparison methods in discrete multiple criteria problems 145 (2003) 496
Lai, C.D., see Chan, L.Y. 150 (2003) 420
Laininen, P. and R.P. Hämäläinen, Analyzing AHP-matrices by regression 148 (2003) 514
Lalas, D.P., see Georgopoulou, E. 146 (2003) 199
Lalitha, C.S., see Suneja, S.K. 144 (2003) 492
Lam, K.F. and J.W. Moy, A piecewise linear programming approach to the two-group discriminant problem – an adaptation to Fisher's linear discriminant function model 145 (2003) 471
Lam, S.S., see Chu, S.C.K. 146 (2003) 156
Lambrecht, M.R., see Dejonckheere, J. 147 (2003) 567
Laporte, G., see Bozkaya, B. 144 (2003) 12
Laporte, G., see Brotcorne, L. 147 (2003) 451
Laporte, G., see Feremans, C. 148 (2003) 1
Laporte, G., see Ghiani, G. 151 (2003) 1
Laporte, G., see Labbé, M. 149 (2003) 490
Larson, R.C., see Pinker, E.J. 144 (2003) 39
Larsson, T., M. Patriksson and A.-B. Strömberg, On the convergence of conditional ε-subgradient methods for convex programs and convex–concave saddle-point problems 151 (2003) 461
Lau, A.H.L. and H.-S. Lau, Comparative normative optimal behavior in two-echelon multiple-retailer distribution systems for a single-period product 144 (2003) 659
Lau, A.H.L. and H.-S. Lau, Effects of a demand-curve's shape on the optimal solutions of a multi-echelon inventory/pricing model 147 (2003) 530
Lau, H.C., M. Sim and K.M. Teo, Vehicle routing problem with time windows and a limited number of vehicles 148 (2003) 559
Lau, H.-S., see Lau, A.H.L. 144 (2003) 659
Lau, H.-S., see Lau, A.H.L. 147 (2003) 530
Lecocq, H., see Bouleimen, K. 149 (2003) 268
Lee, E.S., see Aouam, T. 145 (2003) 317
Lee, L.-H., see Tsai, H.-T. 151 (2003) 167
Lejeune, M.A., Heuristic optimization of experimental designs 147 (2003) 484
Lengnick-Hall, C.A., see Abdinnour-Helm, S. 146 (2003) 258
Lengnick-Hall, M.L., see Abdinnour-Helm, S. 146 (2003) 258
Letouzey, A., see Geneste, L. 147 (2003) 297
Leung, T.W., C.K. Chan and M.D. Troutt, Application of a mixed simulated annealing-genetic algorithm heuristic for the two-dimensional orthogonal packing problem 145 (2003) 530
Leung, T.W., see Troutt, M.D. 144 (2003) 545
Levin, A., see Hassin, R. 151 (2003) 265
Levitin, G., Optimal allocation of multi-state elements in linear consecutively connected systems with vulnerable nodes 150 (2003) 406
Levner, E., see Che, A. 145 (2003) 31

Leyva-López, J.C. and E. Fernández-González, A new method for group decision support based on ELECTRE III methodology 148 (2003) 14
Li, H., see Cheang, B. 151 (2003) 447
Li, H. and A. Lim, Local search with annealing-like restarts to solve the VRPTW 150 (2003) 115
Li, J. and R.S.K. Kwan, A fuzzy genetic algorithm for driver scheduling 147 (2003) 334
Li, L. and W.C. Benton, Hospital capacity management decisions: Emphasis on cost control and quality enhancement 146 (2003) 596
Li, S., Violations of conjoint independence in binary choices: The equate-to-differentiate interpretation 148 (2003) 65
Lim, A., see Cheang, B. 151 (2003) 447
Lim, A., see Li, H. 150 (2003) 115
Lin, C.-J. and U.-P. Wen, Sensitivity analysis of the optimal assignment 149 (2003) 35
Lin, C.K.Y., see Chu, S.C.K. 146 (2003) 156
Lin, J.-N., see Wu, T.-H. 144 (2003) 366
Lingras, P., see Davies, C. 144 (2003) 27
Lins, M.P.E., E.G. Gomes, J.C.C.B. Soares de Mello and A.J.R. Soares de Mello, Olympic ranking based on a zero sum gains DEA model 148 (2003) 312
Liu, J.J., see Yao, D.-Q. 144 (2003) 646
Losa, F.B., see Stewart, T.J. 145 (2003) 645
Lotov, A., see Brouk, E. 150 (2003) 233
Lou, S., see Kogan, K. 149 (2003) 448
Loulou, R., see Jaccard, M. 145 (2003) 148
Love, R.F., see Üster, H. 151 (2003) 586
Lucas, S., see Panton, D. 146 (2003) 486
Luh, P.B., see Chen, H. 149 (2003) 499
Lulli, G., see Dell'Olmo, P. 144 (2003) 179
Luo, H., see Wu, Z. 149 (2003) 614

Mabert, V.A., A. Soni and M.A. Venkataramanan, Enterprise resource planning: Managing the implementation process 146 (2003) 302
Mączka, P., see Błażewicz, J. 149 (2003) 377
Magnus, J.R., see Klaassen, F.J.G.M. 148 (2003) 257
Mahadevan, B., D.F. Pyke and M. Fleischmann, Periodic review, push inventory policies for remanufacturing 151 (2003) 536
Mahajan, V., see Bhattacharya, S. 149 (2003) 102
Mahmassani, H., see Miller-Hooks, E. 146 (2003) 67
Mahmassani, H., see Miller-Hooks, E. 148 (2003) 466
Mandal, P. and A. Gunasekaran, Issues in implementing ERP: A case study 146 (2003) 274
Mandow, L. and J.L. Pérez de la Cruz, Multicriteria heuristic search 150 (2003) 253
Mann, J., see Zhang, G.P. 146 (2003) 115
Maros, I., A generalized dual phase-2 simplex algorithm 149 (2003) 1
Marqués, M.M.L., see Soares, J.O. 145 (2003) 121
Marques Pereira, R.A., see Ribeiro, R.A. 145 (2003) 329
Marsden, J.R. and S. Mathiyalakan, An investigation of changes in attitude over time of GDSS groups under unanimity and majority decision rules 145 (2003) 693
Martello, S., see Labbé, M. 149 (2003) 490
Martínez, J.M., see Birgin, E.G. 146 (2003) 19
Mason, A., see Panton, D. 146 (2003) 486
Mathiyalakan, S., see Marsden, J.R. 145 (2003) 693
McClurg, T., see Weng, Z.K. 151 (2003) 12
Meade, N., see Beasley, J.E. 148 (2003) 621
Medaglia, A.L. and S.-C. Fang, A genetic-based framework for solving (multi-criteria) weighted matching problems 149 (2003) 77
Melo, M.T., see Dellaert, N.P. 150 (2003) 163
Melo, P., see Costa, J.P. 145 (2003) 287
Memtsas, D.P., Multiobjective programming methods in the reserve selection problem 150 (2003) 640
Merrifield, J., see Firoozi, F. 145 (2003) 165
M'Hallah, R. and R.L. Bulfin, Minimizing the weighted number of tardy jobs on a single machine 145 (2003) 45
Michalowski, W., see Karasakal, E.K. 150 (2003) 204

Michelon, P., see Artigues, C. 149 (2003) 249
Miettinen, K., see Lahdelma, R. 147 (2003) 117
Miller-Hooks, E. and H. Mahmassani, Erratum to "Path comparisons for a priori and time-adaptive decisions in stochastic, time-varying networks" [European Journal of Operational Research 146(1), 67–82] 148 (2003) 466
Miller-Hooks, E. and H. Mahmassani, Path comparisons for a priori and time-adaptive decisions in stochastic, time-varying networks 146 (2003) 67
Minner, S., E.A. Silver and D.J. Robb, An improved heuristic for deciding on emergency transshipments 148 (2003) 384
Mirasgedis, S., see Georgopoulou, E. 146 (2003) 199
Mitchell, D.W. and G.M. Gelles, Risk-value models: Restrictions and applications 145 (2003) 109
Miyazawa, F.K. and Y. Wakabayashi, Parametric on-line algorithms for packing rectangles and boxes 150 (2003) 281
Mladenović, N., J. Petrović, V. Kovačević-Vujčić and M. Cangalović, Solving spread spectrum radar polyphase code design problem by tabu search and variable neighbourhood search 151 (2003) 389
Moitra, B.N., see Pal, B.B. 144 (2003) 480
Monnot, J., V.T. Paschos and S. Toulouse, Differential approximation results for the traveling salesman problem with distances 1 and 2 145 (2003) 557
Monteiro, C.M.F., see Soares, J.O. 145 (2003) 121
Morad, D., see Hassin, R. 151 (2003) 265
Moreno Pérez, J.A., see Campos Rodríguez, C.M. 145 (2003) 673
Moreno Pérez, J.A., J.M. Moreno-Vega and I. Rodríquez Martín, Variable neighborhood tabu search and its application to the median cycle problem 151 (2003) 365
Moreno-Jiménez, J.M., see Aguarón, J. 145 (2003) 382
Moreno-Jiménez, J.M., see Aguarón, J. 147 (2003) 137
Moreno-Vega, J.M., see Moreno Pérez, J.A. 151 (2003) 365
Morizawa, K., see Sun, X. 146 (2003) 498
Mosheiov, G. and J.B. Sidney, Scheduling with general job-dependent learning curves 147 (2003) 665
Moskowitz, H., see Tsai, H.-T. 151 (2003) 167
Mousseau, V., J. Figueira, L. Dias, C. Gomes da Silva and J. Climaco, Resolving inconsistencies among constraints on the parameters of an MCDA model 147 (2003) 72
Moy, J.W., see Lam, K.F. 145 (2003) 471
Moya Clemente, I., see Cabedo Semper, J.D. 150 (2003) 516
Mullen, P.M., Prioritising waiting lists: How and why? 150 (2003) 32
Muñoz, S., see Escudero, L.F. 149 (2003) 65
Murphy, F.H., see Haas, D.A. 144 (2003) 530
Murthy, N.N., W.C. Benton and P.A. Rubin, Offsetting inventory cycles of items sharing storage 150 (2003) 304
Musmanno, R., see Ghiani, G. 151 (2003) 1
Mutch, W.E.S., see Kazana, V. 148 (2003) 102
Muyldermans, L., see Beullens, P. 147 (2003) 629

Na, P., see Steuer, R.E. 150 (2003) 496
Nagasawa, H., see Sun, X. 146 (2003) 498
Nair, S.K. and P. Tarasewich, A model and solution method for multi-period sales promotion design 150 (2003) 672
Nakade, K. and K. Ohno, Separate and carousel type allocations of workers in a U-shaped production line 145 (2003) 403
Nakdimon, O. and U. Yechiali, Polling systems with breakdowns and repairs 149 (2003) 588
Narasimhan, R., see Talluri, S. 146 (2003) 543
Nelson, K.G., see Somers, T.M. 146 (2003) 315
Néron, E., see Carlier, J. 149 (2003) 314
Neumann, K., C. Schwindt and J. Zimmermann, Order-based neighborhoods for project scheduling with nonregular objective functions 149 (2003) 325
Nielen, M., see Vonk Noordegraaf, A. 146 (2003) 433
Nishizaki, I., see Sakawa, M. 145 (2003) 665
Norre, S., see Gourgand, M. 151 (2003) 415
Novo, V., see Adán, M. 149 (2003) 641
Nyboer, J., see Jaccard, M. 145 (2003) 148

Obata, T. and H. Ishii, A method for discriminating efficient candidates with ranked voting data 151 (2003) 233
Ogryczak, W. and T. Śliwiński, On solving linear programs with the ordered weighted averaging objective 148 (2003) 80

Oğuz, C., M.F. Ercan, T.C.E. Cheng and Y.F. Fung, Heuristic algorithms for multiprocessor task scheduling in a two-stage hybrid flow-shop 149 (2003) 390
Ohno, K., see Nakade, K.
Olhager, J. and E. Selldin, Enterprise resource planning survey of Swedish manufacturing firms 146 (2003) 365
Olinsky, A., S. Chen and L. Harlow, The comparative efficacy of imputation methods for missing data in structural equation modeling 151 (2003) 53
Oliva, R., Model calibration as a testing strategy for system dynamics models 151 (2003) 552
Ortuño, M.T., see Vitoriano, B.
Osorio, M.A. and M. Laguna, Logic cuts for multilevel generalized assignment problems 144 (2003) 613
Osuna-Gómez, R., see Ruiz-Garzón, G. 151 (2003) 238
Otto, A. and H. Kotzab, Does supply chain management really pay? Six perspectives to measure the performance of managing a supply chain 144 (2003) 501
Ouyang, L.-Y., see Yao, J.-S. 144 (2003) 306
Ozden, M. and Y.-C. Ho, A probabilistic solution-generator for simulation 150 (2003) 601
Özekici, S. and R. Soyer, Reliability of software with an operational profile 146 (2003) 35
149 (2003) 459

Pachulski, A., see Grundstein, M.
Pal, B.B. and B.N. Moitra, A goal programming procedure for solving problems with multiple fuzzy goals using dynamic programming 145 (2003) 256
Panton, D., M. John, S. Lucas and A. Mason, Flight test data cycle map optimisation 144 (2003) 480
Papamichail, D.P., see Papamichail, G.P. 146 (2003) 486
Papamichail, G.P. and D.P. Papamichail, Towards using computational methods for real-time negotiations in electronic commerce 145 (2003) 232
Paparrizos, K., N. Samaras and G. Stephanides, An efficient simplex type algorithm for sparse and dense linear programs 145 (2003) 232
Park, H.-M., see Kim, T.-S. 148 (2003) 323
Park, K. and Y.-S. Shin, Uncapacitated point-to-multipoint network flow problem and its application to multicasting in telecommunication networks 144 (2003) 157
Park, K.T., see Kim, K.H. 147 (2003) 405
Park, S., see Kang, J. 148 (2003) 92
Parkhurst, S.C., see Bartholomew-Biggs, M.C. 147 (2003) 365
Paschos, V.T., see Monnot, J. 146 (2003) 417
Paschos, V.Th., see Bazgan, C. 145 (2003) 557
Patriksson, M., see Larsson, T. 147 (2003) 397
Patterson, R.A., see Jayaraman, V. 151 (2003) 461
Paulsson, U., see Skjött-Larsen, T. 150 (2003) 128
Pérez de la Cruz, J.L., see Mandow, L. 144 (2003) 247
Peridy, L., see Baptiste, P. 150 (2003) 253
Péridy, L., É. Pinson and D. Rivreau, Using short-term memory to minimize the weighted number of late jobs on a single machine 144 (2003) 1
148 (2003) 591
Petersen, T., see Drewes Nielsen, L. 144 (2003) 295
Petrović, J., see Mladenović, N. 151 (2003) 389
Petrovsky, A.B., see Brouk, E. 150 (2003) 233
Pettit, L.I., M.P. Wiper and K.D.S. Young, Bayesian inference for some Lanchester combat laws 148 (2003) 152
Pham, H., Software reliability and cost models: Perspectives, comparison, and practice 149 (2003) 475
Pham, H. and X. Zhang, NHPP software reliability and cost models with testing coverage 145 (2003) 443
Pinker, E.J. and R.C. Larson, Optimizing the use of contingent labor when demand is uncertain 144 (2003) 39
Pinson, E., see Baptiste, P. 144 (2003) 1
Pinson, É., see Péridy, L. 148 (2003) 591
Pires, F.J., see Simões-Marques, M.J. 145 (2003) 343
Pirkul, H., see Agarwal, A. 151 (2003) 481
Pirkul, H., see Jayaraman, V. 147 (2003) 613
Pirkul, H. and S. Soni, New formulations and solution procedures for the hop constrained network design problem 148 (2003) 126
Pontrandolfo, P., see Giannoccaro, I. 149 (2003) 185
Post, T., see Kuosmanen, T. 144 (2003) 454
Potvin, J.-Y., see Ichoua, S. 144 (2003) 379

Power, D., see Terziovski, M. 146 (2003) 580
Prasad, S., see Sharma, R.R.K. 144 (2003) 560
Proth, J.-M., see Chauhan, S.S. 148 (2003) 374
Puente, J., see Varela, R. 145 (2003) 57
Puente, M.A., see Carreras, F. 149 (2003) 676
Puerto, J., see Fernández, E. 145 (2003) 509
Pyke, D.F., see Mahadevan, B. 151 (2003) 536

Queiroz, M. and C. Humes Jr., A heuristic for the continuous capacity and flow assignment 146 (2003) 444
Quintanilla, S., see Valls, V. 149 (2003) 282

Raaymakers, W.H.M. and A.J.M.M. Weijters, Makespan estimation in batch process industries: A comparison between regression analysis and neural networks 145 (2003) 14
Rabbani, M., see Fatemi Ghomi, S.M.T. 145 (2003) 394
Radhakrishnan, S., see Ventura, J.A. 144 (2003) 598
Raftery, J., see Davies, R. 150 (2003) 53
Raghunathan, S., Impact of demand correlation on the value of and incentives for information sharing in a supply chain 146 (2003) 634
Rai, A., see Zhang, G.P. 146 (2003) 115
Rai, A. and N. van der Wijst, Editorial: Financial modelling and extreme events 150 (2003) 463
Rajendran, C. and H. Ziegler, Scheduling to minimize the sum of weighted flowtime and weighted tardiness of jobs in a flowshop with sequence-dependent setup times 149 (2003) 513
Ramírez, J., see Yáñez, J. 148 (2003) 546
Rapoport, A., see Stein, W.E. 151 (2003) 140
Rauner, M.S. and J.M.H. Vissers, Editorial: OR applied to health services: Planning for the future with scarce resources 150 (2003) 1
Rauner, M.S. and N. Bajmoczy, How many AEDs in which region? An economic decision model for the Austrian Red Cross 150 (2003) 3
Recio, B., see Vitoriano, B. 144 (2003) 613
Reeves, P., see Utley, M. 150 (2003) 92
Reimann, M., see Gronalt, M. 151 (2003) 520
Renes, G., see Koning, R.H. 148 (2003) 268
Reusser, S., see Artigues, C. 149 (2003) 249
ReVelle, C., see Harkness, J. 145 (2003) 1
Rhim, H., T.H. Ho and U.S. Karmarkar, Competitive location, production, and market selection 149 (2003) 211
Ribeiro, R.A. and R.A. Marques Pereira, Generalized mixture operators using weighting functions: A comparative study with WA and OWA 145 (2003) 329
Ribeiro, R.A., A.J. Rodrigues and P. Zaraté, Editorial: Decision support systems: current research 145 (2003) 231
Ridder, G., see Koning, R.H. 148 (2003) 268
Riesgo, L., see Gómez-Limón, J.A. 151 (2003) 569
Rivreau, D., see Péridy, L. 148 (2003) 591
Rizzi, L., F. Bazzana, N. Kasabov, M. Fedrizzi and L. Erzegovesi, Simulation of ECB decisions and forecast of short term Euro rate with an adaptive fuzzy expert system 145 (2003) 363
Robb, D.J., see Minner, S. 148 (2003) 384
Roderick, P., see Davies, R. 150 (2003) 53
Rodrigues, A.J., see Ribeiro, R.A. 145 (2003) 231
Rodrigues, B., see Cheang, B. 151 (2003) 447
Rodríguez Martín, I., see Moreno Pérez, J.A. 151 (2003) 365
Rolland, E., see Jayaraman, V. 150 (2003) 128
Ronconi, D.P., see Birgin, E.G. 146 (2003) 19
Rosenthal-Sabroux, C., see Grundstein, M. 145 (2003) 256
Ross, A., see Jayaraman, V. 144 (2003) 629
Roussignol, M., see Dieulle, L. 150 (2003) 451
Roy, P.G., see Gass, S.I. 144 (2003) 459
Rubin, P.A., see Murthy, N.N. 150 (2003) 304
Rubin, P.A. and W.C. Benton, Evaluating jointly constrained order quantity complexities for incremental discounts 149 (2003) 557

Rubio, F., see Vitoriano, B. 144 (2003) 613
Rufián-Lizana, A., see Ruiz-Garzón, G. 144 (2003) 501
Ruiz-Garzón, G., R. Osuna-Gómez and A. Rufián-Lizana, Generalized invex monotonicity 144 (2003) 501
Russell, R.A., see Urban, T.L. 148 (2003) 302
Ryan, P.J., Progressive option bounds from the sequence of concurrently expiring options 151 (2003) 193

Saaty, T.L., Decision-making with the AHP: Why is the principal eigenvector necessary 145 (2003) 85
Sakawa, M. and K. Kato, Genetic algorithms with double strings for 0–1 programming problems 144 (2003) 581
Sakawa, M., K. Kato and I. Nishizaki, An interactive fuzzy satisficing method for multiobjective stochastic linear programming problems through an expectation model 145 (2003) 665
Salazar-González, J.-J., The Steiner cycle polytope 147 (2003) 671
Salminen, P., see Lahdelma, R. 145 (2003) 496
Salminen, P., see Lahdelma, R. 147 (2003) 117
Samaras, N., see Paparrizos, K. 148 (2003) 323
Sánchez-Soriano, J., The pairwise egalitarian solution 150 (2003) 220
Sarafidis, Y., see Georgopoulou, E. 146 (2003) 199
Sarangi, S., see Triantis, K. 144 (2003) 412
Sarker, B.R., The effect of material flow and workload on the performance of machine location heuristics 148 (2003) 166
Sarker, B.R., see Diponegoro, A. 147 (2003) 591
Sarker, B.R., see Yu, J. 149 (2003) 142
Sarkis, J., Enterprise resource planning—modeling and analysis 146 (2003) 229
Sathye, M., Efficiency of banks in a developing economy: The case of India 148 (2003) 662
Saxena, P.K., see Singh, P. 146 (2003) 460
Sayın, S., see Karabatı, S. 149 (2003) 417
Sayin, S., Book Review 148 (2003) 229
Sayyad, M.G., see Harper, P.R. 150 (2003) 81
Scarf, P.A., see Apeland, S. 148 (2003) 410
Scherer, C.W., see Kiesmüller, G.P. 146 (2003) 553
Schmidt, B., see Brailsford, S. 150 (2003) 19
Schmidt, U., The axiomatic basis of risk–value models 145 (2003) 216
Schneeweiss, C., Distributed decision making—a unified approach 150 (2003) 237
Schürle, M., see Frauendorfer, K. 151 (2003) 602
Schwindt, C., see Neumann, K. 149 (2003) 325
Schyns, M., see Crama, Y. 150 (2003) 546
Scozzi, B., see Giannoccaro, I. 149 (2003) 185
Scutellà, M.G., An approximation algorithm for computing longest paths 148 (2003) 584
Seale, D.A., see Stein, W.E. 151 (2003) 140
Seiford, L.M., see Cooper, W.W. 149 (2003) 245
Selldin, E., see Olhager, J. 146 (2003) 365
Semet, F., see Brotcorne, L. 147 (2003) 451
Sevaux, M. and S. Dauzère-Pérès, Genetic algorithms to minimize the weighted number of late jobs on a single machine 151 (2003) 296
Sewell, E.C., see Henderson, D. 145 (2003) 72
Shahani, A.K., see Harper, P.R. 147 (2003) 187
Shahani, A.K., see Harper, P.R. 150 (2003) 81
Sharma, A., see Bhatia, D. 148 (2003) 48
Sharma, R.R.K. and S. Prasad, Obtaining a good primal solution to the uncapacitated transportation problem 144 (2003) 560
Shelgikar, K.M., see Harper, P.R. 150 (2003) 81
Sheu, S.-H., see Wang, C.-H. 149 (2003) 131
Shi, F., An optimal hostage rescue problem 151 (2003) 80
Shin, Y.-S., see Park, K. 147 (2003) 405
Shin, Y.W., GI|$M/M/c$ queue with multiple acceptances in a window 147 (2003) 511
Shiode, S. and Z. Drezner, A competitive facility location problem on a tree network with stochastic weights 149 (2003) 47
Siarry, P., see Chelouah, R. 148 (2003) 335
Siclari, M.J., see Castellacci, G. 150 (2003) 529
Sidney, J.B., see Mosheiov, G. 147 (2003) 665

Sierksma, G., see Boon, B.H. 148 (2003) 277
Sierksma, G., see Koning, R.H. 148 (2003) 231
Silva, A.P.D., see Stam, A. 145 (2003) 92
Silver, E.A., see Minner, S. 148 (2003) 384
Sim, M., see Lau, H.C. 148 (2003) 559
Simões-Marques, M.J. and F.J. Pires, SINGRAR—A fuzzy distributed expert system to assist command and control activities in naval environment 145 (2003) 343
Simper, R., see Drake, L. 147 (2003) 165
Singh, P. and P.K. Saxena, The multiple objective time transportation problem with additional restrictions 146 (2003) 460
Skjött-Larsen, T., U. Paulsson and S. Wandel, Logistics in the Öresund region after the bridge 144 (2003) 247
Skriver, A.J.V., see Ehrgott, M. 147 (2003) 657
Skriver, A.J.V. and K.A. Andersen, The bicriterion semi-obnoxious location (BSL) problem solved by an ϵ-approximation 146 (2003) 517
Śliwiński, T., see Ogryczak, W. 148 (2003) 80
Slyeptsov, A.I. and T.A. Tyshchuk, Fuzzy temporal characteristics of operations for project management on the network models basis 147 (2003) 253
Soares, J.O., M.M.L. Marques and C.M.F. Monteiro, A multivariate methodology to uncover regional disparities: A contribution to improve European Union and governmental decisions 145 (2003) 121
Soares de Mello, A.J.R., see Lins, M.P.E. 148 (2003) 312
Soares de Mello, J.C.C.B., see Lins, M.P.E. 148 (2003) 312
Sohal, A.S., see Terziovski, M. 146 (2003) 580
Solymosi, T., see Hamers, H. 146 (2003) 1
Somers, T.M. and K.G. Nelson, The impact of strategy and integration mechanisms on enterprise system value: Empirical evidence from manufacturing firms 146 (2003) 315
Song, Y., see Chan, G.H. 146 (2003) 529
Soni, A., see Mabert, V.A. 146 (2003) 302
Soni, S., see Pirkul, H. 148 (2003) 126
Sörensen, K. and G.K. Janssens, Data mining with genetic algorithms on binary trees 151 (2003) 253
Soriano, P., see Fortz, B. 151 (2003) 280
Soteriou, A.C., see Hadjinicola, G.C. 145 (2003) 621
Souza, G.C., see Cattani, K.D. 146 (2003) 216
Soyer, R., see Özekici, S. 149 (2003) 459
Spronk, J. and E.M. Vermeulen, Comparative performance evaluation under uncertainty 150 (2003) 482
Stahre, F., see Aldin, N. 144 (2003) 270
Stam, A. and A.P.D. Silva, On multiplicative priority rating methods for the AHP 145 (2003) 92
Stamelos, I. and A. Tsoukiàs, Software evaluation problem situations 145 (2003) 273
Stanciulescu, C., Ph. Fortemps, M. Installé and V. Wertz, Multiobjective fuzzy linear programming problems with fuzzy decision variables 149 (2003) 654
Stein, W.E., D.A. Seale and A. Rapoport, Analysis of heuristic solutions to the best choice problem 151 (2003) 140
Stephanides, G., see Paparrizos, K. 148 (2003) 323
Sterken, E., see Kuper, G.H. 148 (2003) 293
Steuer, R.E. and P. Na, Multiple criteria decision making combined with finance: A categorized bibliographic study 150 (2003) 496
Stewart, T.J. and F.B. Losa, Towards reconciling outranking and value measurement practice 145 (2003) 645
Strömberg, A.-B., see Larsson, T. 151 (2003) 461
Strusevich, V.A., see Kellerer, H. 147 (2003) 345
Su, C.-T., see Chiang, T.-L. 147 (2003) 156
Sun, X., K. Morizawa and H. Nagasawa, Powerful heuristics to minimize makespan in fixed, 3-machine, assembly-type flowshop scheduling 146 (2003) 498
Sundarraj, R.P., see Gnanendran, K. 145 (2003) 585
Sundarraj, R.P. and S. Talluri, A multi-period optimization model for the procurement of component-based enterprise information technologies 146 (2003) 339
Suneja, S.K., C.S. Lalitha and S. Khurana, Second order symmetric duality in multiobjective programming 144 (2003) 492
Sup Sung, C. and Y. Hwan Kim, Minimizing due date related performance measures on two batch processing machines 147 (2003) 644
Szidarovszky, F., see Forgó, F. 147 (2003) 108

Taboubi, S., see Jørgensen, S. 150 (2003) 395
Talluri, S., see Sundarraj, R.P. 146 (2003) 339
Talluri, S. and R. Narasimhan, Vendor evaluation with performance variability: A max–min approach 146 (2003) 543
Tanaka, H., see Guo, P. 148 (2003) 467
Tang, K., L. Gong and D.-S. Chang, Optimal process control policies under a time-varying cost structure 149 (2003) 197
Tarasewich, P., see Nair, S.K. 150 (2003) 672
Tchernykh, A., see Díaz, A.R. 146 (2003) 403
Tenfelde-Podehl, D., see Ehrgott, M. 151 (2003) 119
Teo, K.L., see Yang, X.M. 144 (2003) 554
Teo, K.M., see Lau, H.C. 148 (2003) 559
ter Weel, B., see Bruinshoofd, A. 148 (2003) 233
Teresa Ortuño, M., see Alonso-Ayuso, A. 151 (2003) 503
Terziovski, M., D. Power and A.S. Sohal, The longitudinal effects of the ISO 9000 certification process on business performance 146 (2003) 580
Thomas, D.J. and S.T. Hackman, A committed delivery strategy with fixed frequency and quantity 148 (2003) 363
Tijs, S., see Hamers, H. 146 (2003) 1
Timkovsky, V.G., Identical parallel machines vs. unit-time shops and preemptions vs. chains in scheduling complexity 149 (2003) 355
Tone, K., see Cooper, W.W. 149 (2003) 245
Toulouse, S., see Monnot, J. 145 (2003) 557
Towill, D.R., see Dejonckheere, J. 147 (2003) 567
Triantis, K., S. Sarangi and D. Kuchta, Fuzzy pair-wise dominance and fuzzy indices: An evaluation of productive performance 144 (2003) 412
Troutt, M.D., see Bhattacharyya, S. 144 (2003) 333
Troutt, M.D., see Leung, T.W. 145 (2003) 530
Troutt, M.D. and T.W. Leung, Enhanced bisection strategies for the Maximin Efficiency Ratio model 144 (2003) 545
Tsai, H.-T., H. Moskowitz and L.-H. Lee, Human resource selection for software development projects using Taguchi's parameter design 151 (2003) 167
Tsionas, E.G., Combining DEA and stochastic frontier models: An empirical Bayes approach 147 (2003) 499
Tsoukalas, C., see Hu, M.Y. 146 (2003) 650
Tsoukiàs, A., see Stamelos, I. 145 (2003) 273
Tunali, S., see Batmaz, İ. 145 (2003) 455
Tunali, S. and I. Batmaz, A metamodeling methodology involving both qualitative and quantitative input factors 150 (2003) 437
Tyshchuk, T.A., see Slyeptsov, A.I. 147 (2003) 253

Ule, A. and R.J. Boucherie, On the distribution of calls in a wireless network driven by fluid traffic 147 (2003) 146
Ulu, C., see Köksalan, M. 144 (2003) 429
Umble, E.J., R.R. Haft and M.M. Umble, Enterprise resource planning: Implementation procedures and critical success factors 146 (2003) 241
Umble, M.M., see Umble, E.J. 146 (2003) 241
Umetani, S., M. Yagiura and T. Ibaraki, One-dimensional cutting stock problem to minimize the number of different patterns 146 (2003) 388
Urban, T.L. and R.A. Russell, Scheduling sports competitions on multiple venues 148 (2003) 302
Üster, H. and R.F. Love, Formulation of confidence intervals for estimated actual distances 151 (2003) 586
Utley, M., S. Gallivan, K. Davis, P. Daniel, P. Reeves and J. Worrall, Estimating bed requirements for an intermediate care facility 150 (2003) 92

Valls, V., S. Quintanilla and F. Ballestín, Resource-constrained project scheduling: A critical activity reordering heuristic 149 (2003) 282
Vandaele, N., I. Van Nieuwenhuyse and S. Cupers, Optimal grouping for a nuclear magnetic resonance scanner by means of an open queueing model 151 (2003) 181
van den Broeck, J., see Annaert, J. 151 (2003) 617
van den Nouweland, A., see Casas-Méndez, B. 148 (2003) 494
Vanderpooten, D., see Azibi, R. 144 (2003) 397
Vander Vennet, R., see Annaert, J. 151 (2003) 617
van der Wijst, N., see Rai, A. 150 (2003) 463
van de Velde, S., see Koning, R.H. 148 (2003) 231

Vanhoucke, M., E. Demeulemeester and W. Herroelen, Progress payments in project scheduling problems 148 (2003) 604
Van Nieuwenhuyse, I., see Vandaele, N. 151 (2003) 181
Van Oudheusden, D., see Beullens, P. 147 (2003) 629
Vansnick, J.-C., see Grabisch, M. 148 (2003) 28
Van Voorhis, T. and F.A. Al-Khayyal, Difference of convex solution of quadratically constrained optimization problems 148 (2003) 349
van Wassenhove, L.N., see Akkermans, H.A. 146 (2003) 284
Varela, R., C.R. Vela, J. Puente and A. Gomez, A knowledge-based evolutionary strategy for scheduling problems with bottlenecks 145 (2003) 57
Vaughan, D.E., see Henderson, D. 145 (2003) 72
Vázquez-Brage, M., see Casas-Méndez, B. 148 (2003) 494
Vehviläinen, I. and J. Keppo, Managing electricity market price risk 145 (2003) 136
Vela, C.R., see Varela, R. 145 (2003) 57
Venkataramanan, M.A., see Mabert, V.A. 146 (2003) 302
Ventura, J.A. and S. Radhakrishnan, Single machine scheduling with symmetric earliness and tardiness penalties 144 (2003) 598
Vermeulen, D., see Borm, P. 148 (2003) 480
Vermeulen, D., see Hamers, H. 146 (2003) 1
Vermeulen, E.M., see Spronk, J. 150 (2003) 482
Vilarinho, P.M., see Xambre, A.R. 151 (2003) 434
Vis, I.F.A. and R. de Koster, Transshipment of containers at a container terminal: An overview 147 (2003) 1
Vissers, J.M.H., see Rauner, M.S. 150 (2003) 1
Viswanathan, S. and Q. Wang, Discount pricing decisions in distribution channels with price-sensitive demand 149 (2003) 571
Vitoriano, B., M.T. Ortuño, B. Recio, F. Rubio and A. Alonso-Ayuso, Two alternative models for farm management: Discrete versus continuous time horizon 144 (2003) 613
Vlachos, D. and R. Dekker, Return handling options and order quantities for single period products 151 (2003) 38
Voß, S., see Fink, A. 151 (2003) 400
Vonk Noordegraaf, A., M. Nielen and J.P.C. Kleijnen, Sensitivity analysis by experimental design and metamodelling: Case study on simulation in national animal disease control 146 (2003) 433
Voorneveld, M., see Borm, P. 148 (2003) 480

Wagener, A., Comparative statics under uncertainty: The case of mean-variance preferences 151 (2003) 224
Wagner, M.O., see Eggers, J. 148 (2003) 672
Wakabayashi, Y., see Miyazawa, F.K. 150 (2003) 281
Wakefield, R.R., see Henderson, D. 145 (2003) 72
Wandel, S., see Skjött-Larsen, T. 144 (2003) 247
Wang, C.-H. and S.-H. Sheu, Optimal lot sizing for products sold under free-repair warranty 149 (2003) 131
Wang, Q., see Viswanathan, S. 149 (2003) 571
Weijters, A.J.M.M., see Raaymakers, W.H.M. 145 (2003) 14
Wen, U.-P., see Lin, C.-J. 149 (2003) 35
Weng, Z.K. and T. McClurg, Coordinated ordering decisions for short life cycle products with uncertainty in delivery time and demand 151 (2003) 12
Wertz, V., see Stanciulescu, C. 149 (2003) 654
White III, C.C., see Holloway, H.A. 148 (2003) 525
White, B., see Kampas, A. 147 (2003) 217
Widmer, M., see Hertz, A. 151 (2003) 247
Williams, T., F. Ackermann and C. Eden, Structuring a delay and disruption claim: An application of cause-mapping and system dynamics 148 (2003) 192
Wilson, G.R., see Wu, P. 148 (2003) 570
Wilson, J.M., Gantt charts: A centenary appreciation 149 (2003) 430
Wilson, S.P., see Bartholomew-Biggs, M.C. 146 (2003) 417
Wiper, M.P., see Pettit, L.I. 148 (2003) 152
Woeginger, G.J., see Deĭneko, V.G. 149 (2003) 533
Worrall, J., see Utley, M. 150 (2003) 92
Wu, C.C. and N.B. Chang, Grey input–output analysis and its application for environmental cost allocation 145 (2003) 175
Wu, H.-C., The fuzzy estimators of fuzzy parameters based on fuzzy random variables 146 (2003) 101
Wu, K. and J.-S. Yao, Fuzzy inventory with backorder for fuzzy order quantity and fuzzy shortage quantity 150 (2003) 320

Wu, P., J.C. Hartman and G.R. Wilson, A demand-shifting feasibility algorithm for Benders decomposition 148 (2003) 570
Wu, T.-H. and J.-N. Lin, Solving the competitive discretionary service facility location problem 144 (2003) 366
Wu, Z. and H. Luo, Three-triplet *np* control charts 149 (2003) 614
Wynants, C., see Fortz, B. 151 (2003) 280

Xambre, A.R. and P.M. Vilarinho, A simulated annealing approach for manufacturing cell formation with multiple identical machines 151 (2003) 434
Xie, M., see Chan, L.Y. 150 (2003) 420
Xu, K., P.T. Evers and M.C. Fu, Estimating customer service in a two-location continuous review inventory model with emergency transshipments 145 (2003) 569

Yagiura, M., see Umetani, S. 146 (2003) 388
Yajnik, C.S., see Harper, P.R. 150 (2003) 81
Yamazaki, G., Insensitive light traffic in a cellular system with mobile subscribers 147 (2003) 418
Yáñez, J. and J. Ramírez, The robust coloring problem 148 (2003) 546
Yang, H.-H., see Chen, Y.-L. 144 (2003) 565
Yang, T. and C. Kuo, A hierarchical AHP/DEA methodology for the facilities layout design problem 147 (2003) 128
Yang, X.M., X.Q. Yang and K.L. Teo, Non-differentiable second order symmetric duality in mathematical programming with *F*-convexity 144 (2003) 554
Yang, X.Q., see Yang, X.M. 144 (2003) 554
Yannou, B., see Eggers, J. 148 (2003) 672
Yano, C.A., see Kraus, U.G. 150 (2003) 653
Yao, D.-Q. and J.J. Liu, Channel redistribution with direct selling 144 (2003) 646
Yao, J.-S., see Wu, K. 150 (2003) 320
Yao, J.-S. and J. Chiang, Inventory without backorder with fuzzy total cost and fuzzy storing cost defuzzified by centroid and signed distance 148 (2003) 401
Yao, J.-S., L.-Y. Ouyang and H.-C. Chang, Models for a fuzzy inventory of two replaceable merchandises without backorder based on the signed distance of fuzzy sets 150 (2003) 601
Yechiali, U., see Nakdimon, O. 149 (2003) 588
Ylvinger, S., Light-duty vehicles and external impacts: Product- and policy-performance assessment 144 (2003) 194
Yolalan, R., see Aleskerov, F. 148 (2003) 116
Yoshida, Y., A discrete-time model of American put option in an uncertain environment 151 (2003) 153
Yoshida, Y., The valuation of European options in uncertain environment 145 (2003) 221
You, P.-S., Dynamic rationing policies for product with incremental upgrading demands 144 (2003) 128
Young, K.D.S., see Pettit, L.I. 148 (2003) 152
Yu, J. and B.R. Sarker, Directional decomposition heuristic for a linear machine-cell location problem 149 (2003) 142
Yuan, X.-M., see Cheung, K.L. 146 (2003) 52
Yücesan, E., see Akkermans, H.A. 146 (2003) 284

Zaccour, G., see Jørgensen, S. 150 (2003) 395
Zaimi, S., see Georgopoulou, E. 146 (2003) 199
Zairi, M., see Al-Mashari, M. 146 (2003) 352
Zaraté, P., see Ribeiro, R.A. 145 (2003) 231
Zelenyuk, V., see Färe, R. 146 (2003) 615
Zhang, A.X., see Guu, S.-M. 145 (2003) 635
Zhang, G.P., M. Keil, A. Rai and J. Mann, Predicting information technology project escalation: A neural network approach 146 (2003) 115
Zhang, X., see Pham, H. 145 (2003) 443
Zhu, J., Efficiency evaluation with strong ordinal input and output measures 146 (2003) 477
Zhu, J., Imprecise data envelopment analysis (IDEA): A review and improvement with an application 144 (2003) 513
Ziegler, H., see Rajendran, C. 149 (2003) 513
Zimmermann, J., see Neumann, K. 149 (2003) 325
Zinder, Y., An iterative algorithm for scheduling UET tasks with due dates and release times 149 (2003) 404
Zionts, S., see Joro, T. 149 (2003) 688
Zoroa, N., P. Zoroa and M. José Fernández-Sáez, Raid games across a set with cyclic order 145 (2003) 684
Zoroa, P., see Zoroa, N. 145 (2003) 684
Zufferey, N., see Avanthay, C. 151 (2003) 379